

EXHIBIT VOLUME—IX
TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1961

No. 304

**CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,**

vs.

**UNION CARBIDE AND CARBON
CORPORATION, ET AL.**

**ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

**PETITION FOR CERTIORARI FILED AUGUST 11, 1961
CERTIORARI GRANTED OCTOBER 23, 1961**

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, ET AL.,
PETITIONERS,

vs.

UNION CARBIDE AND CARBON
CORPORATION, ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

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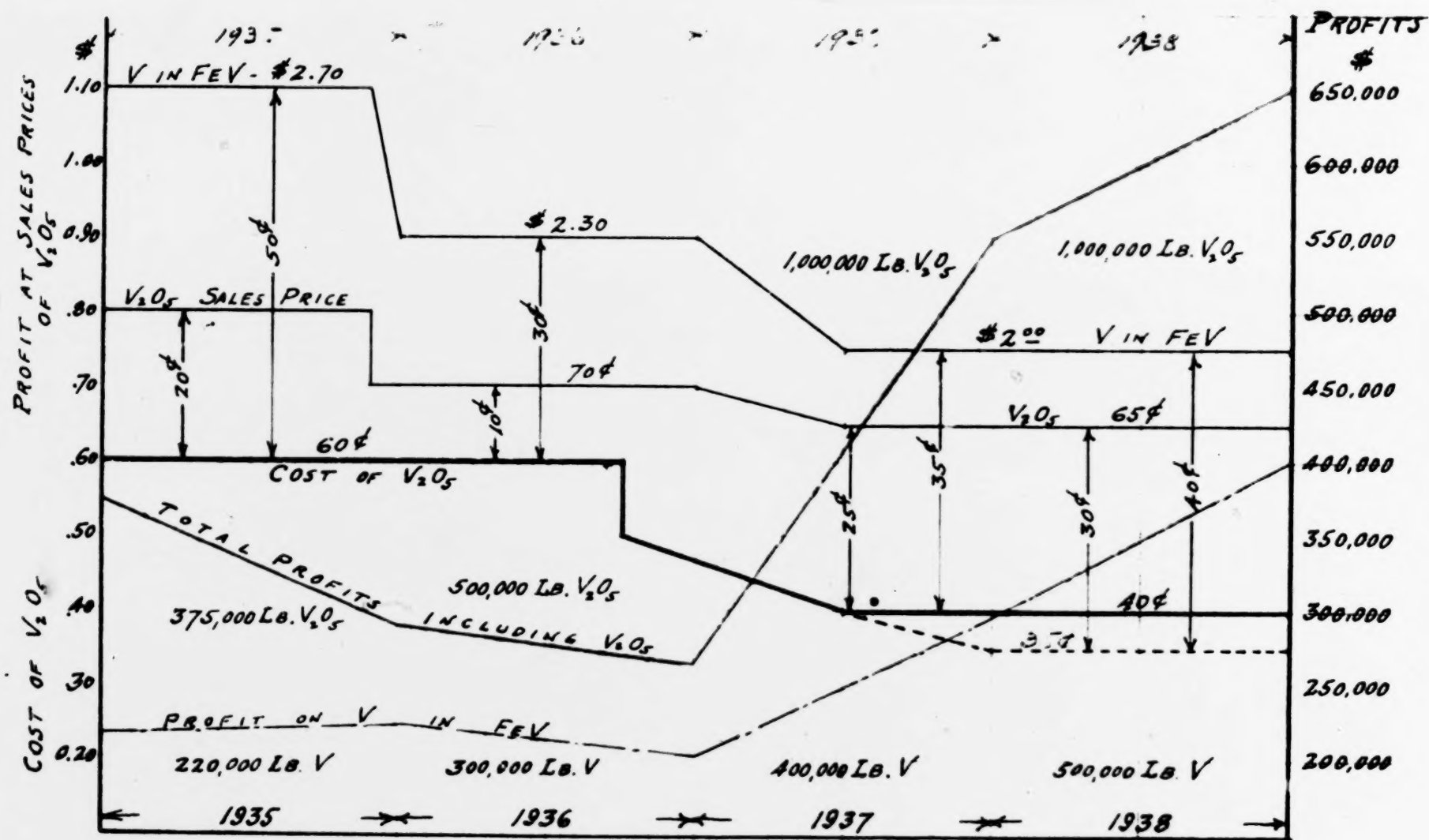
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[fol. 303]



[fol. 304]

IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT No. 49 FOR IDENTIFICATION

COPY

General Mining Department,
Mr. F. P. Gormely,
Room 1715, Building.

New York City.
March 9, 1936.

VANADIUM STOCKS.

Dear Mr. Gormely:

We had available on January 1, 1936, 1,248,000 lbs. V_2O_5 at all places and from all sources. Of this amount the Columbiana requirements for 1936 will be, approximately, 500,000 lbs. The Vanadium Corporation of America has already contracted for a maximum of 375,000 lbs., and we are holding 250,000 lbs. subject to foreign orders. This leaves 123,000 lbs. available for sales of fused vanadium oxide, according to the following tabulation:

January 1, 1936	
V_2O_5 available,	1,248,000 lbs.
U.S.V. Columbiana,	500,000 "
	<hr/>
Vanadium Corp. of America,	748,000 "
	375,000 "
	<hr/>
Foreign Orders,	373,000 "
	250,000 "
	<hr/>
Balance	123,000 "

It is certain that the Vanadium Corporation of America will require more than 375,000 pounds of V_2O_5 this year if we are to furnish them, and it may readily be seen from the above tabulation that our entire stock of fused vanadium

oxide will be exhausted by the end of this year, unless we are in production before that time.

Very truly yours,

EW/J.R.Van Fleet

IC

extra cc

[fol. 305]

United States Vanadium Corp.

New York City.

Mr. F. P. Gormely,
Room 1815, Building.

March 31, 1937.

VANADIUM SITUATION

Dear Mr. Gormely:

Our stocks of fused vanadium oxide and ferro-vanadium have become somewhat depleted. Estimating capacities and sales for the current year and 1938, it would seem desirable that serious consideration should be given to increasing the capacity of the Paradox Valley Plant.

As of April 1, 1937 we have 166,000 pounds of V contained in ferro-vanadium against 237,000 pounds January 1, 1937, and 292,000 pounds January 1, 1936, and 337,500 pounds January 1, 1935.

We have available as of April 1, 1937, 164,000 pounds of fused vanadium oxide. The production of fused vanadium oxide at Uravan for the balance of this year is estimated at 800,000 pounds V_2O_5 . The stock at Columbiana is practically depleted, consisting of only 28,000 pounds, and with the depleted stock of ferro-vanadium, at least from 600,000 to 750,000 pounds should be shipped to Columbiana this year to build up this stock of fused oxide and ferro-vanadium.

If 750,000 pounds of fused oxide is shipped to Columbian there remains 214,000 pounds available for sales. 180,000 pounds of this amount is already spoken for by the Vanadium Corporation of America, and it is certain they will require more than this before the year is out. With the present set-up, at the end of 1937 we will have no stocks of fused oxide for sales purposes.

The present rated capacity of the Uravan Plant is 1,000,000 pounds V_2O_5 yearly. This capacity will, probably, be increased from 20% to 30% by high recoveries when lower temperature roasting is practiced, and the recovery of vanadium and uranium by acid leach begins.

The choke point limiting the capacity of the Uravan Plant is the roaster installation. At present we have two roasters which are separate units and can be operated separately and independently of each other. With two additional roasters the capacity of the plant would be brought up to a minimum of 2,000,000 pounds V_2O_5 yearly and such an installation would be flexible so that the plant could be [fol. 306] worked at any desired capacity up to the maximum, at a moment's notice.

To double the capacity of the plant would, also, require a few additional tanks, but it is roughly estimated that two additional roasters could be installed at the Uravan Plant during the Summer months for about \$150,000.00. A single roaster could, probably, be installed for about \$80,000.00. Depending upon delivery of materials the additional roaster capacity could be installed in about four months' time.

Very truly yours,

EW/J.R. Van Fleet
IC

[fol. 307]

United States Vanadium Corp.

New York City.

Mr. F. P. Gormely,
Room 1815, Building.

March 31, 1937.

VANADIUM SITUATION

Dear Mr. Gormely:

Our stocks of fused vanadium oxide and ferro-vanadium have become somewhat depleted. Estimating capacities and sales for the current year and 1938, it would seem desirable that serious consideration should be given to increasing the capacity of the Paradox Valley Plant.

As of April 1, 1937 we have 166,000 pounds of V contained in ferro-vanadium against 237,000 pounds January 1, 1937, and 292,000 pounds January 1, 1936, and 337,500 pounds January 1, 1935.

We have available as of April 1, 1937, 164,000 pounds of fused vanadium oxide. The production of fused vanadium oxide at Uravan for the balance of this year is estimated at 800,000 pounds V_2O_5 . The stock at Columbiana is practically depleted, consisting of only 28,000 pounds, and with the depleted stock of ferro-vanadium, at least from 600,000 to 750,000 pounds should be shipped to Columbiana this year to build up this stock of fused oxide and ferro-vanadium.

If 750,000 pounds of fused oxide is shipped to Columbiana there remains 214,000 pounds available for sales. 180,000 pounds of this amount is already spoken for by the Vanadium Corporation of America, and it is certain they will require more than this before the year is out. With the present set-up, at the end of 1937 we will have no stocks of fused oxide for sales purposes.

The present rated capacity of the Uravan Plant is 1,000,000 pounds V_2O_5 yearly. This capacity will, probably, be increased from 20% to 30% by high recoveries when lower temperature roasting is practiced, and the recovery of vanadium and uranium by acid leach begins.

The choke point limiting the capacity of the Uravan Plant is the roaster installation. At present we have two roasters which are separate units and can be operated separately and independently of each other. With two additional roasters the capacity of the plant would be brought up to a minimum of 2,000,000 pounds V_2O_5 yearly and such an installation would be flexible so that the plant could be [fol. 308] ~~worked at~~ any desired capacity up to the maximum, at a moment's notice.

To double the capacity of the plant would, also, require a few additional tanks, but it is roughly estimated that two additional roasters could be installed at the Uravan Plant during the Summer months for about \$150,000.00. A single roaster could, probably, be installed for about \$80,000.00. Depending upon delivery of materials the additional roaster capacity could be installed in about four months' time.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 309]

General Mining Department

New York City

November 3, 1937

Mr. F. P. Gormely
Room 1815
Building

United States Vanadium
Corporation—Operations

Dear Mr. Gormely:

VANADIUM SITUATION

We have available in all locations approximately 205,000 pounds of fused V_2O_5 ; the distribution being—

Uravan	120,000	pounds—
Columbiana	56,000	"
Niagara	29,000	"
	<hr/> 205,000	"

It will be noted from the above tabulation that over half of this supply is at Uravan, and it must also be realized that approximately from 100,000 to 200,000 pounds will always be in transit, or unavailable for immediate use. Considering the position of this stock of fused V_2O_5 , it leaves available supplies very low indeed.

In addition to the stock of fused oxide, we have available in all locations approximately 200,000 pounds of vanadium contained in ferro-vanadium. This is equivalent to a little more than six months' shipping requirements of ferro at the present rate of sales.

The stocks of fused oxide should not be less than 1,000,000 pounds in all locations, and we have in the past carried ferro stocks considerably higher than at present.

The capacity at Uravan is exceedingly flexible and is so arranged that any desired production up to 2,000,000 pounds of V_2O_5 can be made annually. We should allow a minimum of 750,000 pounds of fused oxide for our own requirements at Columbiana next year, and it would be desirable to increase the stock of ferro.

When Mr. Sneath went to Europe it was with the understanding that we would have next year an additional 1,000,000 pounds of fused oxide for European sales. It is not known as yet what disposition was made of this allotment of 1,000,000 pounds for European consumption.

Construction of the additional unit at Uravan is practically completed and the new roaster is now being dried out preparatory to bringing it up to heat.

[fol. 310] Considering the present extremely low inventory of vanadium, it is certain that no curtailment of operations at Uravan should be made between now and January 1. It is recommended that before any plans for curtailment for next year are made that the European and Vanadium Corporation of America requirements should be carefully canvassed.

TUNGSTEN SITUATION

We have no stocks of tungsten ore to apply against the commitment under the Ludlum contract, and production from Pine Creek is being counted on for a part if not all of the tungsten ore to apply against this contract.

Construction work at Pine Creek is practically finished and the plant will be ready to operate about November 15. There can be no curtailment of operation at Pine Creek between now and January 1. If tungsten ore is to be produced from this property this Winter, Pine Creek must be operated continuously during the Winter months. If the property were closed and snowed in, it would probably be impossible to open it up later on in the Winter.

Very truly yours,

J. R. Van Fleet/mm
IC

[fol. 311]

General Mining Department

New York City

November 3, 1937

Mr. F. P. Gormely
Room 1815
Building

United States Vanadium
Corporation—Operations

Dear Mr. Gormely:

VANADIUM SITUATION

We have available in all locations approximately 205,000 pounds of fused V_2O_5 ; the distribution being—

Uravan	120,000	pounds
Columbiana	56,000	"
Niagara	29,000	"
	<hr/> 205,000	"

It will be noted from the above tabulation that over half of this supply is at Uravan, and it must also be realized that approximately from 100,000 to 200,000 pounds will always be in transit, or unavailable for immediate use. Considering the position of this stock of fused V_2O_5 , it leaves available supplies very low indeed.

In addition to the stock of fused oxide, we have available in all locations approximately 200,000 pounds of vanadium contained in ferro-vanadium. This is equivalent to a little more than six months' shipping requirements of ferro at the present rate of sales.

The stocks of fused oxide should not be less than 1,000,000 pounds in all locations, and we have in the past carried ferro stocks considerably higher than at present.

The capacity at Uravan is exceedingly flexible and is so arranged that any desired production up to 2,000,000 pounds of V_2O_5 can be made annually. We should allow a minimum of 750,000 pounds of fused oxide for our own requirements at Columbiana next year, and it would be desirable to increase the stock of ferro.

When Mr. Sneath went to Europe it was with the understanding that we would have next year an additional 1,000,000 pounds of fused oxide for European sales. It is not known as yet what disposition was made of this allotment of 1,000,000 pounds for European consumption.

Construction of the additional unit at Uravan is practically completed and the new roaster is now being dried out preparatory to bringing it up to heat.

[fol. 312] Considering the present extremely low inventory of vanadium, it is certain that no curtailment of operations at Uravan should be made between now and January 1. It is recommended that before any plans for curtailment for next year are made that the European and Vanadium Corporation of America requirements should be carefully canvassed.

the Urvan production; or it is possible to make a uranium-radium residue and be paid for the radium accordingly. This radium production, however, is uncertain and we have not estimated any credits therefrom.

Very truly yours,

EW/J.R. Van Fleet
IC
extra cc for Mr. Gormely.

[fol. 322]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 52 FOR IDENTIFICATION

[Handwritten notations—Follow—Tues Nov 12]

November 6, 1935

Memorandum to Mr. E. D. Bransome, President

I talked to Mr. J. M. Price, of Electro Metallurgical Sales Corporation, with reference to the new contract for Oxide. Mr. Price said he had been waiting for a renewal of conversation with Mr. Bransome and Mr. Haggerson. He said that he preferred to wait for a week or ten days before talking price, as the amount they want would be dependent upon the price which would be set for next year for Ferro-vanadium, and that he did not expect to have the information he required for at least a week.

He mentioned that I was probably familiar with their situation that their reserves of Oxides were much depleted, and that the speed with which they would have to proceed with the plans they had in mind (new operations in Paradox Valley is probably meant) would be determined by the amount of Oxide which they would have to "ear-mark." Therefore, he thought a spread of 250,000 firm and 250,000

on option was too great, as he explained it was a 100% spread, and they themselves never consider more than a 25% spread. Therefore, it would be up to us to either raise our firm offer or lower our optional requirements, as he pointed out that such a contract would practically tie up 500,000 pounds with no assurance beyond 250,000 pounds. The difference would inject an uncertainty which would make it difficult for them to properly plan for new operations.

Chas. Rees

CR:HKC

[fol. 323]

November 13, 1935

Mr. F. H. Haggerson, President,
Electro Metallurgical Company,
30 East 42nd Street,
New York, N. Y.

Dear Mr. Haggerson:

Please do not think I am hurrying you as there is no real rush about getting a price on Oxide, but it happened to be an item of unfinished business and I am wondering if you have had a chance to arrive at any conclusions as yet.

Very truly yours,

/s/ EDB
President.

TUNGSTEN SITUATION

We have no stocks of tungsten ore to apply against the commitment under the Ludlum contract, and production from Pine Creek is being counted on for a part if not all of the tungsten ore to apply against this contract.

Construction work at Pine Creek is practically finished and the plant will be ready to operate about November 15. There can be no curtailment of operation at Pine Creek between now and January 1. If tungsten ore is to be produced from this property this Winter, Pine Creek must be operated continuously during the Winter months. If the property were closed and snowed in, it would probably be impossible to open it up later on in the Winter.

Very truly yours,

J. R. Van Fleet/mm
IC

[fol. 313]

[Handwritten notation—Three illegible words]

UNITED STATES VANADIUM CORPORATION

CARBIDE AND CARBON BUILDING
30 EAST FORTY-SECOND STREET
NEW YORK

At Los Angeles
December 29, 1936.

Mr. Blair Burwell,
Uravan,
Colorado.

Dear Blair:

You have noted your copy of Mr. Lewis' letter of December 22 in reference to some Calcium Vanadate which is being made by the Molybdenum Corporation of America.

The Molybdenum Corporation of America are operating the Mammoth Mine near Tucson, Arizona. By flotation they

concentrate the lead molybdate, lead vanadate and gold from the ore. They, of course, recover the gold from these concentrates and have also been recovering the molybdenum. Apparently the vanadium is recovered in the form of a calcium vanadate mixed with salt.

As per the copy enclosed, I have asked the plant to forward to you 50 pounds of the calcium vanadate. I wish you would determine what it would cost to render this calcium vanadate into oxide, or what would be best to do with it, and how you would do it—in order to make a salable product.

The Molybdenum Corporation will produce approximately 300,000 pounds of vanadium oxide yearly in this manner and we, of course, must arrange in some way to corral this production. We cannot, however, make any kind of a proposition to the Molybdenum corporation unless we know how much it would cost to process the material into a usable form.

When you have completed your work on this I wish you would write a full report and send it to Lewis, Gormely, Critchett and Doom.

Very truly yours,

/s/ J. R. VAN FLEET
J. R. Van Fleet.

[fol. 314]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 50 FOR IDENTIFICATION

Memo. on Ore Conference held in New York Office

December 8, 1936

Present:

Messrs. E. D. Bransome

Chas. Rees

J. R. Davis

S. C. King

H. E. Dunn

P. J. Gibbons✓

Mr. Bransome stated that the conference had been called due to the acute vanadium ore shortage at Bridgeville.

Mr. King stated that we have sufficient ore on hand at Bridgeville at the present time to run until December 31st. As of January 1, 1937, we will have on hand approximately 12,000 lbs. contained V in ore. He stated further that the Operating Department's program is to run the electric furnace, if possible, until February 28, 1937. To do this, we must have at least 55,000 lbs. of contained V in ore for January and the same amount for February, or a total of 110,000 lbs. contained V to finish the contemplated run.

Mr. Gibbons advised that there is no ore on the water but by reference to the Mining Department's records from Peru, we should have on hand at Jumasha the production for October and November which should approximate in the terms of shipping mixture, some 60,000 to 70,000 lbs. of contained V.

After a thorough discussion of our operating program for the early part of 1937, it was decided that in order to set-up an emergency stock we would have Mr. Fritz ship

to the States 250,000 lbs. of contained V in ore of the highest grade ore in the mine, Mr. Rees stating that this would be approximately 5% V. It was then decided that Mr. Fritz should be called by long distance telephone and get his report on stocks on hand and the conditions, giving him instructions to have this crude ore come forward. Mr. Rees talked to Mr. Fritz and instructed him to begin shipments immediately of the high grade crude ore and to continue these shipments until the entire tonnage of ore (250,000 lbs. contained V) is shipped. Mr. Fritz estimated it would take approximately three months to complete the shipment of this material. Mr. Fritz also advised that he has in stock in Peru, 50,000 lbs. of contained V in oxide. This material is now going through the dryer and he stated that same would be shipped before the end of December. Mr. Fritz also advised that the 50 ton plant will be in operation about January 1, 1937 but that during the tuning up period for this plant, which would cover the entire month of January, our production would be cut to approximately two-thirds of the normal production of the 15 ton plant. This will approximate 22,000 lbs. of contained V in oxide. The new plant should be producing by February 1st on a normal basis if nothing untoward occurs. Mr. Rees will confirm his telephone instructions to Mr. Fritz with reference to the shipment of the 250,000 lbs. of contained V in crude ore.

Messrs. Davis and King stated that with the receipt from Peru of the 50,000 lbs. contained V in oxide, which should amount to close to 70,000 lbs. contained V in mixture, and the receipt of the December production before the end of January, they should run into no difficulty in running out the balance of their planned electric furnace run.

[fol. 315] Mr. Gibbons advised that we have placed an order with E. M. for two cars of Pentoxide, one of which has already been received at Bridgeville and the second is to be shipped the first week in January. We have committed ourselves to a total of 300,000 lbs. of pentoxide, including the two cars already on order. When required,

we will issue an order for approximately three cars additional.

The Operating Department was requested to advise the Mining Department with reference to their estimated operating schedule for the year 1937 and the approximate tonnages of ore which should be in stock at Bridgeville at various dates during the year in order to meet this schedule. The Mining Department will then advise the Operating Department as to their ability to meet the schedule as presented or give sufficient notice of any necessary change which must be made due to conditions existing in Peru.

At the end of the conference, Mr. Bransome stated that all concerned must bear in mind the fact that the 250,000 lbs. of contained V in crude ore, which is to come forward from Peru, is to be considered as an emergency stock only and not to be used unless the normal shipments to us from Peru should stop or be held up for reasons beyond our control.

P. J. GIBBONS, Secretary.

[fol. 316]

Conference on Raw Material Situation
Held in New York Office Feb. 9, 1937

Present:

Messrs. Bransome
Davis
Rees
Gibbons.✓

The Operating Department submitted the following schedule of Vanadium ore required for their operations over the year 1937:

Ore Required	High Grade	Low Grade
February		54,000
March		54,000
April	67,400	
May	92,200	
June	106,400	
July	71,000	
August	71,000	
September	60,000	
October	54,000	
November	54,000	
December	54,000	
	<hr/>	<hr/>
Total	630,000	108,000
		738,000

It was determined from advice received from Mr. Frits and schedule of shipments worked up between him and the Lima office of the Grace Line, that we could expect the following shipments of high grade and low grade ores over the first half of 1937:

Total Ore to reach Bridgeville by
approximately July 18, 1937

To Arrive	Lbs. "V"	
	High Grade	Low Grade
February	29,000	260,000
March	—	240,000
April	44,800	
May	112,000	
June	190,400	
July	212,800	
	<hr/>	<hr/>
Total	589,000	500,000
		1,089,000

A check of our present ore situation at Bridgeville shows that we have on hand 27,000 lbs. contained "V" in ore. We have afloat 29,000 lbs. contained "V" high grade and 260,000 lbs. contained "V" low grade. Further, with these figures, Mr. Davis stated that by the use of the low grade ore in

the electric furnace for the months of February and March, he should be able to meet his production requirements. [fol. 317] After July, all material arriving at Bridgeville will be of high grade. This should approximate tonnage of between 70,000 and 90,000 lbs. of contained "V" per month.

In reference to the use of Pentoxide for the production of Primos grade vanadium, Mr. Davis estimated that we would require a total tonnage of Pentoxide of 951,900 lbs. contained V₂O₅. His estimate of production for our own plant at Bridgeville is 575,000 lbs. contained V₂O₅. Under these circumstances, it was deemed advisable to place a further order with E. M. for 300,000 lbs. contained V₂O₅ for shipment during the year 1937, shipments to be spread out over the year as near as possible to the times he feels he will need same.

The chrome ore situation was then discussed. Taking into consideration the estimate of sales, as prepared by the Sales Department, it was the consensus of opinion that we have just about enough ore on hand and on order to cover our requirements for the year 1937. Therefore, it was further decided that in order to build up our stocks to a safe position so that we would reach the end of the year in good shape from a chrome ore point of view, Mr. Rees was authorized to purchase up to 10,000 tons of ore, consisting of 8,000 tons of lump ore, either Turkish or Selukwe, and 2,000 tons of Concentrates.

As both Messrs. Rees and Davis were satisfied as to our position on Quartzites and other miscellaneous materials, these raw materials were not discussed.

This matter of raw materials is to be discussed monthly. Therefore, the subject will again be reviewed after the Advisory Board meeting which is called for March 9, 1937.

P. J. Gibbons, Secretary.

[fol. 318]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 51 FOR IDENTIFICATION

COPY

[Handwritten notations—Rose—Copy]

U. S. Vanadium Corporation,

New York City.

Mr. F. P. Gormely,
Room 1715, Building.

March 25, 1936.

Messrs. F. H. Haggerson,
W. H. Sneath,
J. M. Price.VANDIUM SITUATION.
Vanadium Corp. of America.

Dear Mr. Gormely:

On Monday I had a talk with Mr. Bransone and Mr. Rees of the Vanadium Corporation of America in reference to the purchase of some of the equipment now at their Naturita Plant for use in our Paradox Valley Plant at Uravan. Previous conversations in regard to the use of the Naturita Plant were reviewed by Mr. Rees and myself for the benefit of Mr. Bransone.

It was then brought out that we had selected the Uravan Plant site for purely economic reasons. I explained that Uravan was 15 miles closer to rail at Grand Junction, which railroad point enabled us to use the new Dolores River road, thereby shortening the hauling on finished product and supplies. Also, the Uravan site was more central to our ore supply, and the saving in hauling alone would, practically, build the plant. I further explained that with our manufacturing process as it had been developed, the Naturita Plant would have to be entirely rebuilt with the exception of the single roaster installation. I stated that there was some of the equipment in the Naturita Plant which we could use, and would be glad to consider its purchase; also, such ore supplies as they had available.

The outcome of this discussion was that at the present time the Vanadium Corporation of America would not consider dismantling their Naturita Plant and would keep their investment intact. They would consider the leasing of the Plant or an outright sale. This subject was not discussed further, because the Naturita site is not desirable for economic reasons, and the fact that the Vanadium Corporation of America have an exalted idea of the value of the Naturita Plant, regardless of the operating failure they have already experienced.

The discussion then turned to the vanadium situation in general. Mr. Bransone stated a reduction in price of V in ferrovanadium is indicated, but that a small reduction would do no good; and that their cost of producing vanadium was so high a considerable reduction could not be made. I asked him what he thought would be a "considerable reduction", and he said to \$2.25 or \$2.10 per pound. He went on to say that with the fused oxide costing him 80¢ per pound there was little profit in vanadium at the present prices. It developed when he was roughly casting up these figures, that in their present practice it requires 2.2 lbs. of V_2O_5 to make 1 lb. of V in ferro.

[fol. 319] Mr. Rees is the Vice President of the Vanadium Corporation of America, and a Mining Engineer. He is responsible for the Peruvian operation. He told Mr. Bransone that our costs at Rifle were between 60¢ and 70¢ per pound of V_2O_5 , and assumed it as being 65¢. With this assumption he considered 80¢ per pound was about as cheap as we could be expected to sell fused oxide from our present stocks. I stated that the Rifle production was, probably, cheaper than the Peruvian production in any case—to which he made no reply.

In regard to the Peruvian production I said it was evident they had resumed operations in Peru, judging from the amount of concentrates they had been importing over the last few months, which amounted (up to February 1st) to 709 tons containing an equivalent of, approximately, 230,000 pounds of V_2O_5 in fused oxide.

Mr. Bransone stated in answer to this that they had resumed operations in Peru on a reduced scale and expected to continue this production all this year. He said the object of this operation was so he could find out exactly what the production cost; that some economies were being put into effect; and that the figures of the past operation were not clear, and he was finding out the facts for himself. The same crew is operating, and Charlie Fritz is still in charge.

Apparently, there has been much discussion between Mr. Bransone and Mr. Rees in reference to a purchase contract with us, because Mr. Rees called to Mr. Bransone's attention the fact that the Rifle production at 65¢ per pound V_2O_5 included a high depletion charge. Mr. Rees said we had purchased the Rifle properties at a relatively high figure and that his estimate was the depletion charge must have been about 25¢ per pound. He further stated that our Paradox Valley investment was relatively small and the depletion charge would, practically, be negligible—so costs at the Uravan operation would be somewhere between 40¢ and 50¢ per pound. He inferred they could not hope to secure this cost in Peru and, apparently, they have had many discussions about this Peruvian operation, and I am under the impression that Mr. Rees is not in favor of it. I asked how much V_2O_5 they would produce in Peru this year and they replied, probably about 500,000 pounds, but the production would depend upon the success of the operation as they planned it.

Mr. Bransone stated he believed in laying his cards on the table in regard to vanadium production, that he knew he could not fool us, and any other attitude would be foolish to take. He said when he found out what his costs were going to be in Peru, he believed it would be advantageous for all concerned to get together on one production operation. He said that by the time he was ready to discuss this [fol. 320] situation we would, probably, know just what our costs would be at the Uravan Plant. Mr. Bransone asked what our costs at that Plant would be. I told him we were in no position to make any definite statement as to this cost at this time, because we were making some changes in

the process and were not certain as to how these changes would affect the costs.

Mr. Bransone stated many times that he was very anxious to reduce the cost of V_2O_5 production to a point where a considerable reduction in the sales price of V in FeV could be made. In this respect I said that there seemed to be a difference of opinion as to the advisability of reducing the sales price of vanadium as to its effect upon sales. Mr. Bransone said his contacts with the steel people seemed to indicate that a considerable reduction would stimulate the use of vanadium.

The vanadium production contemplated by the Molybdenum Corporation of America at their Mammoth operation, was discussed and Mr. Bransone wanted to know what I knew about it. I reviewed the Mammoth operation as I knew it—which was to the effect that so far the production of vanadium and molybdenum at the Mammoth had been uncertain and disappointing, but that they planned to build a new mill and could recover, according to my figures, approximately 300,000 pounds V_2O_5 yearly. This production would be in the form of a lead-molybdate and lead-vanadate concentrate containing gold and silver.

I told them that information I had was to the effect that the Molybdenum Corporation had not been very successful in separating the vanadium and molybdenum from these concentrates. Mr. Bransone said that Mr. Hirsch had been to see him a couple of times about reducing these concentrates for him and purchasing the vanadium. Mr. Bransone said he had not been able to find out from Mr. Hirsch how much vanadium product or residue he actually had at present, nor in what form it was—and wanted to know what information I had on this subject. I told him my information was not sufficient to definitely state either the amount or form of the vanadium, but that I thought the vanadium was, at present, in the form of a sodium vanadate slag also containing the molybdenum, and that the molybdenum in the slag equalled about twice the vanadium content. This was the opinion of Mr. Rees also, and he stated his information on this was to the effect that the work so far carried

on by the Molybdenum Corporation on these vanadium-molybdenum concentrates had resulted in a very high cost for recovery of these metals.

My impression gained from this talk with Messrs. Bransone and Rees was that the Vanadium Corporation is in somewhat of a state of confusion regarding their vanadium production. It is evident that they must obtain a cheaper source of vanadium, and will use as a threat the possibilities [fol. 321] at both their Peruvian and Naturita properties in negotiating lower prices with us the latter part of this year.

An interesting fact indicated from this conversation was that, apparently, their process for making ferro-vanadium is not as efficient as ours. It requires 2.2 lbs. of V_2O_5 for 1 lb. of V in FeV. We roughly figure 2 lbs. in our process, but the actual experience is approximately 1.9 lb. V_2O_5 for each pound of V in ferro.

The actual situation with us in the Paradox Valley is that we estimate we will be able to produce V_2O_5 for 40¢ per pound including depreciation and depletion charges, without taking any credit for uranium production. We will, at this operation, produce U_3O_8 residue as a by-product—the amount of U_3O_8 residue produced will depend upon the ores processed.

We have ores containing a high uranium content and by selective mining we can make this production, approximately, as desired. There is a market in the United States for about 250,000 pounds of U_3O_8 yearly—which is mostly imported from Belgium. It is thought that we can readily sell about 100,000 pounds of U_3O_8 yearly, principally to the Vitro Manufacturing Company of Pittsburgh, who have already expressed a desire to purchase their supply from us. The profit on U_3O_8 should be about \$1.00 per pound and with this credit against the vanadium production the cost of V_2O_5 would be about 30¢ per pound.

There are, also, possibilities with radium in making a low-grade radium sulphate residue as a by-product from

[fol. 324]

[Letterhead of Electro Metallurgical Company,
New York, N. Y.]

[Handwritten notation—EDB]

November 15, 1935.

Mr. E. D. Bransome,
President, Vanadium Corporation of America,
120 Broadway
New York, N. Y.

Dear Mr. Bransome:

I expect that we will be getting in touch with you sometime within the next ten days with regard to the price on Oxide.

Very truly yours,

/s/ FRED H. HAGGERSON

FHH:MK

[fol. 325]

[Letterhead of United States Vanadium Corporation,
New York, N. Y.]

[Handwritten notations—AAC Jr—C/BDs—7/11/34]

July 10, 1934.

Mr. Charles Rees, Vice President,
Vanadium Corporation of America,
#120 Broadway,
New York City.

Dear Mr. Rees:

I have a letter from Colorado which states that on June 21st Mr. Burwell met Mr. Sterling at Naturita and went over both the Naturita and Vanadium plants.

Mr. Sterling furnished Mr. Burwell with plans, and drawings and estimates are now being made for the re-arrange-

ment to suit our process. I will be very glad to advise you when this work is completed.

It was kind of you to arrange with Mr. Sterling to confer with Mr. Burwell, and I appreciate the courtesy very much.

Very truly yours,

/s/ J. R. VAN FLEET
General Manager

EW/J. R. Van Fleet
USV

[fol. 326]

June 6, 1934

Mr. Robert Sterling,
Vanadium Corporation of America,
Boulder, Colo.

Dear Sterling:

In connection with the survey which engineers of the U.S. Vanadium Company are making in the Paradox Valley for a proposed operation at the Joe, Jr. mill site, we have been requested by their office here to permit their engineers to include our plant and facilities at Naturita in their investigation.

We have had several discussions with their Mr. Van Fleet during the past three or four months on the subject of joining our properties and plant in the Paradox Valley with their holdings on a mutual operating basis by which each party is to retain unimpaired titles to their holdings. If we come to any agreement as to conditions and method of operation, one party to the agreement will be selected as the operator, and the non-operating member will be represented by an agent to protect its interests.

We wish you to be present for whatever time may be necessary, when the U. S. Vanadium engineers inspect the Naturita plant, as you will then be in a better position to give us your impressions as to what they may have in mind.

We feel that the location of the Naturita plant, with its convenient coal reserves, is a valuable asset. The building of the proposed plant at the Joe Jr. mill site would involve a large capital expenditure for plant and power, in addition to extra transportation costs, housing, and other problems which would not be required at the Naturita plant. I also think you will agree that both companies have sufficient ore reserves contiguous to the Naturita plant to maintain operations for a number of years.

Mr. Van Fleet stated to me on the telephone that Mr. Wilson had allowed him to inspect the Naturita mill on his recent visit there but that he thought he ought to ask permission so that they could make a more complete study. He suggested that we wire Mr. Wilson to allow the engineers to do this work but I pointed out to him that you were our representative in Colorado and any such orders for entering the property would have to come from you. I do not know exactly what Mr. Van Fleet has in mind as he [fol. 327] speaks of the necessity of doing a lot of draughting, mapping and surveying at our plant. I do not think it will be necessary for you to remain there for the period of such work but will leave to your judgment the time needed to form for us as complete an idea as possible of the character, scope and object of the investigations they are making. Would suggest that you get in touch with the U.S. Vanadium engineer in charge of this work as soon as possible and make such arrangement as you may deem necessary.

I have given you the outline of the situation at this date so that you can govern yourself accordingly in meeting their engineers. I do not know whether Mr. Van Fleet has discussed the matter of possible joint operation in Colorado with his engineers, and if you learn that he has not, would suggest that you respect Mr. Van Fleet's reticence in the matter with them.

Yours very truly,

/s/ CHAS REES
Vice President

CR:LD

Copy to Dr. B.D.S.

[fol. 328]

[Handwritten notation—File]

March 13, 1934

Memorandum to Mr. A. A. Corey, Jr.

Re: Rare Metal Properties

Mr. Van Fleet was in today and said that he wished to discuss the possibility of making some sort of an arrangement whereby a Vanadium operation could be started in the Paradox Valley where our Rare Metal properties are situated.

He stated that for some time he has been facing the problem of producing Vanadic Acid for their use before their present stocks are exhausted, which he thought might be at the end of a three-year period from the present time. Boiled down, his ideas are as follows:

- 1—The plant we have at Naturita, with some changes to increase its capacity, which he says their experience would dictate, would be acceptable to them if we wish to sell it at a replacement value. They would then make Vanadic Acid and sell us our requirements at a price to be determined.
- 2—As a consideration for the sale of the plant to them, they would purchase our ore at the plant, at prices ranging from \$15 to \$20 per ton delivered, according to the grade of ore.

On the assumption that we have 68,000 tons proven and probable ore, averaging close to 3% V_2O_5 , this would mean an estimated net to us of around \$8 per ton for the ore delivered at the plant or roughly \$500,000 from sale of ore from our properties, plus what they would pay us for the plant.

- 3—Supposing that we are not interested, then he would proceed to make such plans as would be necessary for rebuilding the old Standard Chemical Company plant, using as much as they can of the present equipment at Rifle.

COMMENTS: Mr. Van Fleet, in our discussions, ignored the coal at Naturita until I mentioned that we thought we had a nice layout there, and he agreed it was very convenient to have the coal mine, as you might say, almost in the backyard of the plant. He asked me for an estimate of [fol. 329] our tonnage, ~~400,000~~ 1 told him that due to later discoveries on our own claims and the surrendering of the lease, that our figures had changed somewhat from those made by Professor Hutchinson, but we felt that with the ore available on our own properties, plus what would come to us from independent properties (which he agreed would likely be offered), that we had sufficient ore to maintain an operation on the basis of present plant capacity.

He stated that they had made surveys for roads connecting their various properties to their proposed mill location. Among these are the Jo Dandy claims, which he referred to as having large reserves of ore. These are nearer to our plant at Naturita by eight to ten miles than they would be to their proposed new plant site. Mr. Van Fleet agreed that the Jo Dandy ores would be cheaper if handled at our Naturita plant.

Mr. Van Fleet made several remarks which are worth noting.

1—He said they would not be able to sell Vanadic Oxide at the price we are now getting it, as costs of operation at Naturita would be higher than at Rifle. He mentioned 90¢ Lb. V_2O_5 .

2—An economical operation could only be achieved by a plant working continuously and with sufficient capacity to take care of their needs, plus all or part of our requirements. He figures the present plant at Naturita, with changes they would make, would produce 750,000# of V_2O_5 . This checks closely with the figure given us by the Schulers as the capacity of the plant as designed now.

What we must determine, is the amount of Vanadic Oxide they will require for themselves, as Mr. Van Fleet

says they want to stay in the Vanadium business. A fifty-ton plant such as we now have at Naturita might produce more than they would need, and as a result, their costs would become correspondingly higher if it were not worked continuously and to capacity. With a plant twice the capacity, which could only be brought about by our cooperating, there would be further economies in operation, but whether these economies would be great enough to make them attractive to us in comparison with our Peruvian ores, would have to be worked out.

What I wish to point out is that any benefits derived from an operation in the Paradox Valley, would be through our taking sufficient V_2O_5 to permit of the continuous operation of a plant and what was not emphasized but what I feel was a very important thought in the mind of Mr. Van Fleet, is our possession of the coal and its favorable location to our plant. I asked him just how far he had worked up any of his ideas on the subject and he said that so far he merely wished to discuss the matter to ascertain our attitude, but that he would like to press it if we were interested, as he felt that the time was ripe for him to submit plans to his principals.

[fol. 330] While they possess a very large ore reserve, there are several points in our favor viz., the possession of the coal and its cheapness; the fact that low costs could only be made by them through our agreeing to take a sufficient quantity of V_2O_5 to permit of continuous capacity operation and finally, there is the possibility that we ourselves could make an operation with the ore reserves we now have, plus purchased ore.

Any way you look at it, our position is just as good as theirs.

Chas. Rees.

[fol. 331]

Memorandum to Mr. A. A. Corey, Jr.

Mr. Van Fleet called this afternoon. Said he dropped in as he was downtown on other business.

With regard to their activities in Colorado, he said that they were completing their plans for an operation, but that he thought that his opinion, which he formed during the beginning of the year, that there would be a great increase in the demand for Vanadium and consequently necessitate rushing plans for operation in the Paradox Valley, was not justified by his present information on the future of Vanadium.

He said they would finish their plans and would mark time. They will, however, put in a small experimental salt evaporating plant on the Dolores River and he said he was taking steps to install a hydro electric plant at their old millsite down the river from our Naturita plant. This power would be used at the mines and not in the mill.

C.R.

August 17, 1934

[fol. 332]

[Letterhead of Electro Metallurgical Sales Corporation,
New York, N. Y.]

[Handwritten notations—PJG—Note AAC—PJG 4/3/35]

April 2nd, 1935.

Mr. A. A. Corey, Jr., President
Vanadium Corporation of America
120 Broadway
New York, N. Y.

Dear Mr. Corey:

Pursuant to my letter of September 15, 1933 and confirming the conversation had with the writer in my office this morning, we will extend the delivery date of the 250,000 pounds of vanadium oxide still due on your contract to the third and fourth quarters of this year instead of shipment being made in the second quarter.

As arranged this morning, a car of this oxide will be shipped in each of the following months: July, September and December, 1935.

Assuring you of our pleasure in being able to make this change for you, I am, with kind regards

Very truly yours,

/s/ J. M. PRICE
President

JMP:AP

[fol. 333]

April 3, 1935

PERSONAL

Dr. B. D. Saklatwalla, Vice President,
Vanadium Corporation of America,
Bridgeville, Penna.

Dear Doctor:

I spent the morning of Tuesday with our friends on Forty-second Street with two objects in view.

First,—To extend the deliveries of the remaining oxide due this second quarter to the last half of the year.

I am pleased to advise that this was finally found acceptable on the part of our friends.

In effect, this is deferring a \$190,000 raw materials bill from the second quarter to the last half.

The shipments will be as follows: 1 car in July; 1 in September and 1 in December.

Second,—To discuss possible Silico-Manganese arrangements for next year.

I think it will be agreeable to E.M. to furnish our requirements of this material on the same general terms as affects our contract for this year and it seems to me that this is a very satisfactory solution. This second proposition has not

yet been confirmed, but I am confident that it will be. In any event, with respect to Silico-Manganese, you know we are absolutely protected through our present contract for the balance of this year.

A further word with regard to the oxide matter. I believe E. M. will be willing to contract for additional oxide for next year, but I told them we could not possibly make any decision as to whether we would want oxide from them next year earlier than October.

If the optimistic views of Miller and Gus with respect to additional business when the new extras go into effect are 50% sound, then we may be glad to have some amount of oxide from E.M. or some other source.

Yours very truly,

/s/ A. A. C.
President.

[fol. 334]

March 17, 1936

MEMORANDUM OF DISCUSSION WITH MR. B. O'SHEA, ELECTRO METALLURGICAL COMPANY

In a discussion this morning with Mr. O'Shea, regarding possible purchases by V.C.A. of oxide from E. M., the following discussion was had:

Mr. O'Shea stated that E.M. intended to build a plant in Colorado for the reduction of vanadium ore and that the size of the plant and the equipment therefore would be dependent upon the demand by V.C.A. of oxide from E.M. and that the date on which they would start building was dependent on whether V.C.A. would take 300,000 pounds of V_2O_5 within the next twenty-four months that they had ear-marked for V.C.A.

I assured him that we would take from them within the next twenty-four months V_2O_5 in the amount of at least

300,000 pounds, which would permit him to proceed with his building operation on any scale he saw fit.

While the subject of price was not mentioned, I assume that the price of the oxide to us would be the same or approximately the same as that we are paying now under the existing contract.

Mr. O'Shea was concerned with the possibility of our resuming operations in Peru and thus leave them with a large amount of oxide on their hands which they were really carrying for us.

I advised that I did not know the extent of the ore of high vanadium content in Peru and would not be convinced of any figures until proof arrived at step by step was given me.

I did tell him, however, that the extensive operations of the Peruvian mine were contingent upon the cost of purchase or production here and that if the cost here was substantially higher than that of Peru that we would naturally turn to Peru if we were convinced that the ore body there was sufficient to carry on over a substantial period of time.

I further advised him that if substantial quantities of high grade ore were available there that we intended to extend the life of the mine as far as reasonable and that if the amount of high grade ore there was very low in quantity that we would naturally use it up as quickly as possible so as to cut out expensive operations there.

I stipulated that when, as and if we went on extensive operations in the Peruvian deposit that we would give them sufficient notice if such notice would prevent them from unnecessary plant expenditures to take care of our demand.

At the close of this discussion, Mr. O'Shea was of the opinion that a plant with one roaster would be sufficient to answer their purpose.

E. D. Bransome

Copy to P.J.G.
C.R.

FORM S. E. M. S.

pat. s. "FERROALLOY"
NEW YORK

CODES: WESTERN UNION

LIEBER S. A. S. C. 5TH EDITION

ELECTRO METALLURGICAL SALES CORPORATION

CARBIDE AND CARBON BUILDING, NEW YORK

DISTRIBUTORS "ELECTROMET"

FERRO-ALLOYS AND OTHER ELECTRO-METALLURGICAL PRODUCTS

SALES AGENTS

E. J. LAVINO & COMPANY, BULLITT BUILDING, PHILADELPHIA

HICKMAN, WILLIAMS & COMPANY, PITTSBURG, CINCINNATI, CHICAGO, ST. LOUIS, DETROIT, CLEVELAND, NEW YORK, PHILADELPHIA.

MEMORANDUM OF SALE

(IN DUPLICATE)

CONTRACT No. N-10870

January 3rd 1936.

ELECTRO METALLURGICAL SALES CORPORATION A CORPORATION OF NEW YORK HEREBY AGREES TO SELL AND

Vanadium Corporation of America of New York, N. Y. HEREBY AGREES TO BUY

QUANTITY

A minimum of 250,000 pounds but not over a maximum of 375,000 pounds to be so taken.

MATERIAL

"ELECTROMET" Brand Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.

PRICE

Eighty cents (80¢) per pound of V_2O_5 , f.o.b. cars at Seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for Buyer's account.

TERMS

Net cash thirty (30) days from date of invoice.

DELIVERY

As required, in as nearly equal monthly quantities from date to December 31st, 1936 inclusive.

REMARKS

See letter attached which is pursuant to and part of this contract.

TERMS Net cash thirty (30) days from date of invoice.

DELIVERY As required, in as nearly equal monthly quantities from date to December 31st, 1936 inclusive.

REMARKS See letter attached which is pursuant to and part of this contract.

*copy to
RDS 1/9/36*

Payments to be made in U. S. lawful currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, accident, delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the Seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy, PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys under contracts, on the basis of the respective minimum monthly tonnages of the particular ferro-alloy to be delivered to the Buyer and to such other customers under the provisions of such contracts, but the Seller shall be released from any and all its other obligations hereunder, provided however, that any ferro-alloy sold under the agreement but not delivered to the Buyer, at the times herein provided for shall be delivered by the Seller as soon thereafter as practicable, taking into consideration the requirements of such ferro-alloy of all other customers of the Seller.

No change in or addition to the terms or provisions hereof shall be made unless approved by an executive officer of the Seller in writing.

Whenever the Seller shall have any doubt about the Buyer's responsibility, it may decline to make further deliveries hereunder until the Buyer shall have satisfied the Seller of his responsibility or shall have paid for such further deliveries in advance.

If freight is allowed hereunder, it is based on present existing freight rates and if such freight rates vary up or down on shipments made hereunder the price of such shipments shall be increased or decreased as the case may be by the respective amounts of such freight increase or decrease. Buyer shall pay to Seller such excise taxes and other special taxes as now are or hereafter may be imposed upon Seller resulting from sale or delivery under this agreement.

If the Buyer fails to make payments or commits any other default under the terms of this or any other contract between the parties hereto and such failure or default shall continue after notice thereof from the Seller to the Buyer, then the Seller shall have the right, at its option, without further notice, either to defer any further deliveries hereunder or to stop any shipments in transit hereunder or to cancel or terminate such contract or contracts; and no waiver by the Seller of its right to take advantage of any such failure or default shall stop the Seller to insist on its strict rights in case of and as to any subsequent failure or default.

After the Buyer has accepted same, to render this instrument binding upon Electro Metallurgical Sales Corporation, it must be approved in writing by an executive officer of said Corporation.

ACCEPTED:

VANADIUM CORPORATION OF AMERICA

BY

Chas Rees
Vice President

ELECTRO METALLURGICAL SALES CORPORATION.

BY

SALE AGENT

APPROVED

J. M. Rees

CABLE

80. "FERROALLOY"
NEW YORK

CODES: WESTERN UNION

LIEBER'S A B C 8TH EDITION

ELECTRO METALLURGICAL SALES CORPORATION

CARBIDE AND CARBON BUILDING, NEW YORK

DISTRIBUTORS "ELECTROMET"

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HICKMAN, WILLIAMS & COMPANY, PITTSBURGH, CINCINNATI, CHICAGO, ST. LOUIS, DETROIT, CLEVELAND, NEW YORK, PHILADELPHIA

MEMORANDUM OF SALE

(IN DUPLICATE)

CONTRACT No. N-10870

September 15th, 1933

ELECTRO METALLURGICAL SALES CORPORATION A CORPORATION OF NEW YORK HEREBY AGREES TO SELL AND

Vanadium Corporation of America

OF

New York, N. Y.

HEREBY AGREES TO BUY

QUANTITY

A minimum of 1,000,000 pounds but not over a maximum of 1,250,000 pounds to be so taken.

MATERIAL

Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.

PRICE

Eighty Cents (80¢) per pound of V_2O_5 , f.o.b. cars, seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for buyer's account.

TERMS

Net cash tenth of month following date of invoice.

DELIVERY

In equal monthly quantities from date to December 31, 1934 inclusive.

REMARKS

See letter attached which is pursuant to and part of this contract.

[fol. 336]

350

MATERIAL

Vanadium Pentoxide (V_2O_5) - Specifications as per letter attached.

PRICE

Eighty Cents (80¢) per pound of V_2O_5 , f.o.b. cars, seller's works or warehouses, with freight charges allowed to Bridgeville, Pa., surcharge for buyer's account.

TERMS

Net cash tenth of month following date of invoice.

DELIVERY

In equal monthly quantities from date to December 31, 1934 inclusive.

REMARKS

See letter attached which is pursuant to and part of this contract.

Payments to be made in U. S. gold coin or its equivalent in currency with exchange on New York. Each delivery to constitute a separate independent contract and to be governed by the terms hereof. Works' tests of the Manufacturer of said material to govern settlements.

All agreements of the Seller herein are subject to and contingent upon strikes, riot, war, commandeering or requisitioning or allotting to others in priority to the Buyer by the Government, invasion, fire, explosion, accident, delays in procuring sufficient and suitable raw materials, curtailment or failure in obtaining sufficient electrical power, delays of carriers, and/or other delays beyond the reasonable control of the seller and/or the Manufacturer, affecting either the Seller and/or the Manufacturer of such ferro-alloy. PROVIDED, HOWEVER, that in case of and upon the happening of any such event whereby the total output of the Manufacturer's plants of ferro-alloys and/or other products which the said plants are or may be then engaged in producing, is curtailed, or a portion or all of said output is commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, then the Seller shall use its best efforts to fairly and equitably pro rate any ferro-alloys, which may be produced at said plants and which are not commandeered or requisitioned or allotted to others in priority to the Buyer by the Government, between the Buyer and its other customers of ferro-alloys under contracts, on the basis of the respective minimum monthly tonnages of the particular ferro-alloy to be delivered to the Buyer and to such other customers under the provisions of such contracts, but the Seller shall be released from any and all its other obligations hereunder, provided however, that any ferro-alloy sold under the agreement but not delivered to the Buyer at the times herein provided for shall be delivered by the Seller as soon thereafter as practicable, taking into consideration the requirements of such ferro-alloy of all other customers of the Seller.

No change in or addition to the terms or provisions hereof shall be made unless approved by an executive officer of the Seller in writing.

Whenever the Seller shall have any doubt about the Buyer's responsibility, it may decline to make further deliveries hereunder until the Buyer shall have satisfied the Seller of his responsibility or shall have paid for such further deliveries in advance.

If freight is allowed hereunder it is based on present existing freight rates and if such freight rates vary up or down on any shipments made hereunder the price of such shipments shall be increased or decreased as the case may be by the respective amounts of such freight increase or decrease. If any excise tax is now or hereafter imposed upon the Seller, resulting from sale or delivery under this agreement, the Buyer shall also pay the amount thereof to the Seller.

If the Buyer fails to make payments or commits any other default under the terms of this or any other contract between the parties hereto and such failure or default shall continue after notice thereof from the Seller to the Buyer, then the Seller shall have the right, at its option, without further notice, either to defer any further deliveries hereunder or to stop any shipments in transit hereunder or to cancel or terminate such contract or contracts; and no waiver by the Seller of its right to take advantage of any such failure or default shall stop the Seller to insist on strict rights in case of and as to any subsequent failure or default.

After the Buyer has accepted same to render this instrument binding upon Electro Metallurgical Sales Corporation, it must be approved by an executive officer of said Corporation.

ELECTRO METALLURGICAL SALES CORPORATION.

BY

SALES AGENTS

APPROVED:

PRESIDENT

ACCEPTED:

VANADIUM CORPORATION OF AMERICA

PRESIDENT

336

[fol. 337]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 53 FOR IDENTIFICATION

INTER-COMPANY CORRESPONDENCE

COMPANY U.S. Vanadium Corporation

LOCATION Rifle, Colorado.

To Mr. J. R. Van Fleet

LOCATION New York City, N.Y.

DATE December 22, 1933.

SUBJECT Paradox Process

Dear Van:

In the enclosed letter on the results of research recently conducted at Rifle, and the data sheets on the detail thereof, we have tried to assemble data which will have a bearing on the the most important questions of vanadium policy which will be before you.

Following our last discussion on the matter in which you brought up the question of the adaptability of the Vanadium Corporation of America to an enlarged scheme of operation, it has seemed to me necessary that we should bring our ideas together to decide what will be the most economical and up to date plant of a large capacity, in its treatment features, and if we can fit the Vanadium Corporation plant into such a scheme of things without the sacrifice of good design and operation. I know that this is your idea.

As covered in its essentials in the enclosed letter, I have worked over as much of the operating data available on the Rifle operation in order to define what will be required in a new plant to eliminate past weak points of design. The operation and function of a salt roast plant will, however, be strongly altered by the addition of an acid treatment step as outlined.

From a consideration of the recovery of uranium in a slime portion of the ore, the acid treatment has developed

in research to the point that important changes in roasting practise and reduction of costs are indicated. I feel that we would not want to design a larger roasting plant at this time without the establishment of factors now indicated which would alter our final design.

If we can operate one roaster, and recover 80,000 pounds of vanadium per month, then instead of a three roaster plant in the future we would consider two roasters, and possibly a different type. As a large part of a plant cost is in the roaster unit, this is an important consideration as you are aware.

I am enclosing with this letter a plan showing the present mill buildings of the Vanadium Corporation of America and the property lines around them. They have, by recorded document, a right of way over the Hutchings property to the north and east of the 20 acres on which the mill is built. It is this adjoining Hutchings property, on the north and east, that I have referred to as being desirable to obtain in advance of any operation at this point, and which is necessary for housing and additional expansion of plant.

As the result of several preliminary trial layouts, a small scale sketch of one enclosed, it is my opinion that the present installation of the roaster building and roaster, [fol.338] and the leach building, will fit into a larger scheme of operation without loss of efficiency. There is room for additional capacity in conjunction with these units to the north and east.

The coal mine, tramway to the mill and general arrangement can scarcely be improved upon. I have gone over the mine and tram in detail recently and outside of a change in the method of loading tram buckets and larger gates for coarse coal there is little change indicated. I believe that the present estimated cost of coal at \$2.25 per ton at the mill will be much improved.

The principal changes in the plant to treat a larger tonnage will be new power plant, new ore bind and crushing arrangement, and a precipitation building. The considera-

tion of a power plant should involve a water tube boiler installation of higher efficiency than the fire tube type now used, and probably a modern steam turbine generator set. The details of which will have to be developed by more study on the question.

From the layout of the present buildings you can probably get a preliminary idea of the possibilities of larger additional installations.

My idea now would be to value the Vanadium Corporation plant for the units available for expansion. From present costs we can value

18 foot Skinner roaster, steel mill building, stack and dust collector	\$ 57,000
Leach building, mill type, 60X72 feet	13,500
Coal Mine and Tramway, bins and property	25,000
Housing in Naturita	4,000
2 portable compressors, Tools and equipment	8,000
Motors, pumps and equipment usable	12,000
2000 tons of ore stockpiled at mill at \$7.00	14,000
Approximately 1600 tons of ore blocked out on Maggie C Claim, Long Park at \$3.00	4,800
	<hr/> \$138,300

There is a considerable warehouse stock, bolts etc. which we have not gone over in detail. You will understand that this list is not a complete summary of the items of possible value, but the main items which can be used in a larger operation, or a single roaster operation as needed.

I have not completed, at this time, the study of additional ore deposits in the region tributary to the Paradox Valley, and the relationship of these deposits to the Vanadium Corporation mill, but this information will be sent to you as soon as possible.

Presuming that vanadium production will be called for early in 1935 my suggested schedule of procedure would be about as follows.

1st. Make some arrangement for obtaining the Vanadium Corporation plant early in 1934, and purchase the additional ranch land needed for expansion.

[fol. 339] 2nd. Using facilities of the Vanadium Corporation, such as offices and laboratory, start the drawing up of final plans for plant changes at the Vanadium Corporation Plant to start one roaster and leach unit with provision for expansion of tonnage. Boiler installation for enlarged plant can be designed, and finished estimates made of this work during the early spring. Laboratory work to start on the further investigation of the process, especially the treatment of iron cake, and uranimum. Plans drawn up for the salt evaporation plant.

3rd. As spring floods permit, on the Dolores River, start the salt work, with the schedule of starting evaporation in July, 1934.

4th. Changes and alterations in the Vanadium Corporation plant to start as soon as plans are available.

It would be then suggested to start the operation with one roaster, as soon as units for complete treatment were available, and continue the enlargement of plant, if necessary, while operating the single roaster and with the benefit of the operating data thus secured.

In the research on vanadium ores by salt roasting, and the associated acid treatment now indicated, it is difficult to obtain a scale of tests intermediate in size between the tests we have so far conducted, and a full size unit, that would serve as larger checks on laboratory work. The rabbling action and the temperature control of a large furnace cannot be simulated by hand control of a smaller experimental furnace, considering one in which a few hundred pounds are treated. The common method of comparison is to conduct the tests on a small scale with a blank or duplicate test on an ore on which large tonnage data is known, and from this make a plus or minus comparison. In our detail, as handled by George Smith at Rifle, the tests as tabulated are the actual results without allowance for possible improvement on large scale tests or operation of

a larger roaster with longer heat exposure and better rabbling conditions.

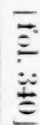
I have a sample of ore ready to send to the Research Laboratory, on which I think that it would be of much value to have a check made of the principal features so far developed at Rifle. In particular they may be able to go into the iron cake and uranium recovery which we have not thoroughly investigated. If you will advise me of the correct address, which we do not have at Rifle, we will send this ore subject to your instructions. The sample will be representative of the character of the ore from Long Park and the Club workings and will amount to about 25 pounds.

I have tried to cover as many of the points in the problem as possible, but in case you need more information let us know. Enclosed is data on ammonium meta-vanadate production which I had George Smith assemble with the idea of having this data on file in case of need.

While Dick has not assembled this months costs, on metavanadate, indications are that we are well under estimates made in September. We have 7,000 pounds of ammonium chloride left over, charged out in the process which was not needed largely due to economies of solution strength worked out on the last run. Our present recorded data will give better information for the ordering of raw materials, in the future.

Yours very truly

/s/ BLAIR BURWELL



65-156 340

[fol. 341]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 54 FOR IDENTIFICATION

Minutes of a regular meeting of the Executive Committee of the Vanadium Corporation of America, held at the office of the Company, No. 120 Broadway, in the Borough of Manhattan, City and State of New York, on the 4th day of April, 1935, at 11:30 o'clock in the forenoon.

The following members were present constituting a quorum:

Messrs. Alfred A. Corey, Jr., Presiding
Charles E. Adams
Parker Sloane
Samuel F. Pryor, Jr.

Mr. Oscar Cooper and Mr. P. J. Gibbons, Secretary of the Corporation, were also present.

The President reported in the matter of reduction in "quality extras" as applied to vanadium steels, which subject was fully discussed at and recorded in the minutes of the meetings of the Board of Directors on February 21 and March 21, 1935, that since the March 21st meeting the Alloy Steel Committee of the Iron and Steel Institute have definitely decided to recommend to the Board of the American Iron and Steel Institute those extras as listed by the Committee and concurred in by us. He stated that he felt confident that the Board would accept the recommendations of the Committee.

The President reviewed the Vanadium inventory status and reported that through negotiations with the Electro Metallurgical Sales Corporation the balance of 250,000 pounds of Vanadium Pentoxide, which was scheduled for delivery to us the second quarter of this year, has now been scheduled for delivery over the last half of the year, equal quantities coming to us in July, September and December.

He further stated in this connection that it would be unnecessary to resume operations in Peru this year and also that in the event business in Vanadium did not materially

increase it might be possible to make further purchases from Electro Metallurgical Sales Corporation for the year 1936. The present outlook would seem to warrant the pre-[fol. 342] diction that our best proposition would be to produce some amount in Peru and supplement our requirements by purchases of oxide, but that this decision can be delayed until October or November.

In the matter of Silico-Manganese, which had been previously mentioned in an informal way, the President now advised that we had contracted with Electro Metallurgical Sales Corporation for our requirements of Silico-Manganese over the balance of the year 1935 and that we were now negotiating with respect to our requirements of this commodity for the year 1936. The reason for this contract, the President stated, was the low selling price of the commodity and the high cost of manufacture and the further possibility that this commodity might not continue in demand as it had the last half of 1934 and the first quarter of 1935. Under the present arrangement, instead of having to absorb a loss on each ton shipped, we expect to at least break even and in some instances where we have favorable freight rates to show a small profit.

Due to the great amount of interest developed recently in the Perrin Processes, the President reported to the Committee that the Societe D' Electro-Chimie has been very insistent that we send representatives to France for the purpose of investigating these Processes as practiced in France. He stated that previous reports have been made to the Board that representatives of Bethlehem Steel Corporation are now in France and reports from them indicate a very considerable interest, which has been confirmed by Bethlehem Steel Corporation officials. The Republic Steel Corporation is also interested, a representative of their Metallurgical Department having spent most of yesterday in our offices in a conference with Mr. Andre Jaoul, a Director of the Societe D' Electro-Chimie, and our representatives. The President further stated that the interest of the United States Steel Corporation has been kept very much alive on this subject, a number of discussions having been held between the technical men of their Corporation and ours. For these reasons,

.

[fol. 343]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 60 FOR IDENTIFICATION

CONFIDENTIAL

AMERICAN URANIUM RESOURCES

BLAIR BURWELL

July, 1949

[fol. 344] AMERICAN URANIUM RESOURCES

About 1947, the newly formed Atomic Energy Commission created the Raw Materials Division for the procurement and development of raw uranium resources, including the development of an American supply. The Raw Materials Division followed the Manhattan District operations, and was created as a result of recommendations of an Advisory Board of officials of mining companies.

During the administration of the Manhattan District, the procurement of raw materials and the appraisal of American resources (as well as world resources) was carried out by contracting companies, using personnel with long experience in the industry. At the completion of the Manhattan District project, detailed reports were made as to availability and quantity of uranium resources in the United States by the Union Mines Company; and mining properties were selected and purchased for the Government in the Colorado Plateau Area for future supply to Government plants. These properties were the Gateway Mines in Nesa County, Colorado; the Slick Rock Mines in San Niguel County, Colorado; and leaseholds on the Navajo Reservation in Arizona.

In addition to appraisal and acquisition of uranium ore mines, this organization designed, built, and operated three plants in the Colorado Plateau Area for the expressed purpose of the recovery of uranium. An early and highly important output of uranium followed from Colorado Plateau resources at a time when the mines of Belgian Congo and Canada were not producing. This supply of uranium, in

a quantity between two and three million pounds of metal, reached the Manhattan District atomic metal separation plants at a critical time when supplies were badly needed, and was a vital and important contribution to the success of this undertaking. It may be noted that the *Fifth Semi-annual Report* of the Atomic Energy Commission, Page 5, prepared by the Raw Materials Division, states, "The United States has produced little uranium," which is not in accordance with the record of production.

In the pre-Atomic Commission activity period, a tremendous amount of detailed work was done and policies were formulated for the future procurement of uranium from domestic or American ore resources. This work included the development of ore-processing methods, the operation of pilot plants, and the designing of future ore-processing plants. The relationship of future uranium production to the limitations of associated metals occurring with the uranium, with particular emphasis on vanadium, was particularly investigated at that time.

Because of the importance of this work on present considerations of American uranium production and the wide divergence between the policy of American uranium procurement of the Manhattan District and the present policy of the Atomic Energy Commission towards American resources, an understanding of the basic problem of uranium procurement is necessary.

In particular, this is emphasized because, failure to understand the technical problems and economic complexi-

—2—

[fol. 345] ties of uranium ore production can lead to policies of procurement and development of uranium ores which would limit or interfere with the continuation of an adequate American supply for the future.

The industry of producing uranium is a special industry which in the past has been handled by a few companies with special and limited markets. The majority of ores containing uranium have been found and mined for the associated radium content (and this includes the American Colorado Plateau carnotite ores). Metals associated with uranium-radium and which are variously classified as by-

products or principal products of the ores include the silver content of the Canadian pitchblende ores, the palladium and gold content of the Belgian ores, and the vanadian content of the American carnotite ores. In many cases, the "tail wags the dog" when considering the associated metals which occur with uranium; and much production of uranium-bearing ores has been carried on for the associated metals during times when the markets of radium and uranium were depressed.

There were three main world resources of uranium ores which contributed to the atomic bomb job. They were: the Colorado Plateau carnotite ore region, the Belgian Congo Shinkolowbe Mine, and the Idarado Mine in Canada. Of the three, the first in point of discovery and early production was the American deposits, the mined ores of which have contained (as of 1941) in excess of 5,000,000 pounds of uranium. The Colorado Plateau was the only important world resource actively producing uranium from ores in substantial quantities in 1941.

The Belgian Congo deposits, after producing approximately 4,500,000 pounds of uranium metal and after the establishment of control of world markets of radium and uranium by price cutting and cartel manipulation, was inactive in 1943, with its mines filled with water.

The Canadian deposits (Idarado Mines) which constituted the third important area, suspended operations in 1938 after producing approximately 500,000 pounds of uranium; and its mine was not operating in early 1940. This world resource was under a cartel agreement and control at the start of atomic energy development, and was only restored to production by direct action of the Canadian Government.

Thus, at the start of the Manhattan Project, the principal quantity of uranium available for that job was contained: (1) in uranium metal stocks in the hands of the Belgian cartel (which included approximately one-half million pounds of American-produced uranium acquired by the cartel); (2) residue and dump piles discarded in the sorting of low-grade ores in Africa; and (3) uranium production

of the Colorado Plateau under way from tailings and ores stored and accumulated for the purpose of uranium recovery. In all directions, the production of uranium itself was affected by restrictions and limitations of markets for the associated radium or vanadium contained in its ores.

—3—

[fol.346] But most important at that time in connection with American production, was the developing problem of vanadium marketing which shortly resulted in an investigation by the Department of Justice and subsequent indictment of the two vanadium companies for restrictive agreements and price setting. Because this trend was recognized at that time, the planning of production of uranium as a by-product of future unstable vanadium markets was not considered; and, instead, the desirability of obtaining uranium free from these restrictions was the justification for extensive work on processing of ore to avoid excessive costs in unwanted or unmarketable vanadium. In other words, uranium was the metal required, and vanadium was considered a by-product. Needless to say, this did not meet with the approval of all the vanadium industry at that time, and in particular with the Vanadium Corporation of America; but, nevertheless, this was the carefully considered policy of that time.

It is pertinent to the question of future development of uranium resources in the United States to know what this monopoly suit is about and what it means to American uranium production of ores which contain vanadium.

The two companies of the United States responsible for practically all the production of vanadium are the United States Vanadium Corporation and the Vanadium Corporation of America. Neither of these companies was concerned with uranium production prior to 1938.

The United States Vanadium Corporation is a controlled subsidiary of the Electrometallurgical Company, a part of Union Carbide and Carbon Corporation, which conducts a ferro-alloy business, of which the most profitable portion is the production of ferro-chrome used in stainless steel. The ores of chrome are obtained by this company in Africa, and it also conducts European smelting operations. It

controls by far the largest part of the chrome-alloy business in this country.

The Vanadium Corporation of America is a separate company, principally engaged in vanadium production and sales. Before 1935, it obtained its vanadium from Peru or acquired it from the United States Vanadium Corporation. In order to forestall antitrust action on the ferrochrome business, an agreement was made between the Electrometallurgical Company and the Vanadium Corporation of America whereby the Vanadium Corporation of America was established as a competitor of Electrometallurgical Company, selling chrome alloys (supplied in large part by Electromet); and the Vanadium Corporation of America in return was allowed to maintain its vanadium markets (consisting of two thirds of all sales) without price cutting or competition by United States Vanadium Corporation.

In a period of time, the ability to produce vanadium by the United States Vanadium Corporation increased beyond its portion of the market; and at the same time, the mines of the Vanadium Corporation of America in Peru declined in productivity so that United States Vanadium Corporation was forced to sell its vanadium in a partially finished form to V. C. A., instead of reducing prices and expanding markets to take care of excess output.

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[fol. 347] As time went on, the Uravan Plant was constructed by the United States Vanadium Corporation, with capacity provided to supply V. C. A. with vanadium; and many millions of pounds of vanadium were handled between the two companies. However, declining sales and usages of vanadium were noted; and a careful engineering survey of vanadium markets was made by the industry. As a result of this investigation, it was found that the markets and usages of vanadium could be greatly increased and that much of its application in steel could be restored if the price of vanadium in alloy steel could be moderately reduced. Molybdenum was taking the place of vanadium in much alloy steel, not because it was better, but because the same benefit could be obtained with Molybdenum at a

lower cost. At that time, the United States Vanadium Corporation, having large and efficient plants, could produce vanadium more cheaply than the V. C. A. and could sell vanadium at a lower price into the steel industry required to restore markets, and could still make more money than by selling the raw material to its associate, the Vanadium Corporation of America. However, because this would cause the Vanadium Corporation of America to go out of business (and thus destroy the antitrust value of V. C. A. as a competitor in ferro-chrome), this remedy of disposal of excess vanadium was not applied; and the arrangement of subordinating U. S. V. vanadium business to African chrome sales continued. It may be said that this policy was bitterly contested by the operating management of U. S. V., who were required to accept restrictive sales policies over their objections.

Inasmuch as vanadium and uranium occur together in American Colorado Plateau ores, it was recognized that any policy which would artificially restrict or limit the exploration for and mining and disposal of the ores would also restrict and limit the development of uranium ores; and by this simple logic, it was apparent that it was dangerous to limit future uranium development and production by subordinating it to vanadium output.

With the investigation of the situation by the Department of Justice which led to a subsequent indictment on the facts herein stated, the arrangement between the Vanadium Corporation of America and United States Vanadium Corporation (whereby U. S. V. was to supply its associate with vanadium) was dropped; and the V. C. A. began operations in the Colorado Plateau field at its Naturita Plant (hitherto idle), obtaining the majority of its ore from the mines of independent producers and miners of ore in the region.

As a result, U. S. V., unable to dispose of its vanadium output to V. C. A. and unable to dispose of it as a finished product by reducing prices and enlarging markets (because of the continuing agreement between Electrometallurgical Company and V. C. A.) was forced to cut its mining and processing 80 per cent and to lay off its miners and operators in the Colorado region.

With the completion of the bomb and the Manhattan project, the majority of the plants in the region shut down or operated at half capacity, with the exception of the Naturita Plant of the V. C. A., which began the purchase of uranium-vanadium ores from independent miners at a

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[fol. 348] price (approved by Mr. David E. Lilienthal) of 35 cents per pound of U_3O_8 for average ores of the region.

When the Raw Materials Division of the Atomic Energy Commission was formed, the Commission, presumably in ignorance of the background and facts of the American situation which had developed prior to the creation of the Atomic Energy Commission, installed personnel and policies (guided principally by the council of the vanadium industry who, for natural reasons, wished to recapture the profits and opportunities which would result if American uranium production were channeled through their interests). The Vanadium Corporation of America, who had no experience in the production of uranium prior to 1940 and little successful experience in the production of vanadium from American ores (Their operations were confined to Peru prior to 1938.) expanded their operations in the Colorado area under secret contracts and arrangements with the newly formed Raw Materials Division; and assumed a leading position in the field. The policies and prices established under this arrangement led to a storm of protest from a hundred or more small independent miners who were not considered in the arrangement. This group did succeed, through the offices of Senator Johnson, in blocking the sale of the Monticello Plant to V. C. A. at a price of approximately 14 per cent of its cost, in the hope that some processing outlet would be salvaged for their ores in the future.

In the past year, the newly developing policy of the Atomic Energy Commission toward its domestic supply of uranium is given by Mr. John K. Gustafson, Manager of Raw Materials Operations of the Commission, December 17, 1948, in a rather amazing statement, in view of the record . . . quoting from Page 2 therefrom:

"The Colorado Plateau was the only area in the United States actually producing uranium. Production came from low-grade carnotite ore mined primarily for vanadium, with uranium recovered as by-product. (Comment No. 1) During the war the Manhattan District financed the construction and operation of two plants (Comment No. 2) for the extraction of uranium from tailings of Colorado vanadium plants and also purchased uranium concentrates produced as a by-product from the vanadium operations. Following the war it was tentatively decided by the Manhattan District to purchase only by-product uranium rather than to stimulate and support increased production by special incentives. (Comment No. 3) This position was based on the fact that the known uranium reserves of the Colorado Plateau were limited (Comment No. 4) and expensive to mine and process (Comment No. 5) and that the only advantage of an accelerated program would be to make this limited supply available sooner. Since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to total U. S. requirements and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market. (Comment No. 6) (See Page 6 for Comments)

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[fol. 349] *Comment No. 1*

Much of the ores herein involved were found and mined for radium-uranium recovery. In this operation radium-uranium was the principal product—vanadium a by-product.

Comment No. 2

The Manhattan District financed the construction and operation of four plants, not two.

Comment No. 3

Following the war, the Manhattan District suspended all operations in the Colorado Plateau Region. The

tentative decision to purchase uranium as a by-product was the policy of the newly formed Raw Materials Division, and the ensuing statement should not be incorrectly attributed to the inactive Manhattan District.

Comment No. 4

It would have been accurate here to have stated that this was an opinion of Dr. Gustafson after a few short visits to the region, and not a fact supported by Manhattan District investigations. After more than two years of surveys and field work, costing over \$2,000,000 in Government money and as a result of the work of a large number of competent geologists and engineers of long experience in the field, a report was written in 1945 containing the following:

"The Colorado Plateau carnotite deposits represent the largest and lowest cost reserves of uranium within our national boundaries and, possibly from the viewpoint of the ultimate tonnage of contained uranium they may surpass any other group of deposits in the world."

Comment No. 5

It is true that the ores are expensive to mine and to process, if methods of treatment of vanadium output are superimposed over the cheaper and less involved uranium recovery methods. However, the fact is that this area was the only one producing uranium on its own merit prior to the atomic bomb job, based on the economies of that time; and its costs of mining and processing were competitive with other world sources at that time.

Comment No. 6

This conclusion, in reading the statement, would be

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[fol. 350] presumed to be a natural conclusion by the Manhattan District rather than a new policy initiated subsequent to the project. The only logical explanation

of the policy developed here, in direct reverse of previous plans and policies is that this represents the effect of influence of the vanadium industry and that it is not based on Government interest.

As a result of this policy, Government plants have been turned over to the Vanadium Corporation of America for operation (The Durango Plant, leases and properties purchased for Government purposes (The Indian Reservation and Calamity Mines) have been assigned to the V. C. A. and U. S. V. for operation by secret contracts, and arrangements have been made of a similar nature for the processing of ores and delivery of uranium bought under Government contracts at the Naturita and Durango Plants.

It is important to understand something of the processing problem of treating Colorado Plateau ores, and in particular the reason for the present difficulties in the region from losses and inefficient processing now being charged in the press. The explanation herein is not an individual opinion of the problem; it is a statement of the past experience in treating the ores of the region, and is contained also in reports made by the writer to the Raw Materials Division in 1948.

The uranium content of Colorado ores is recoverable much more easily and with less expensive equipment than the vanadium content of the same ores, and with a much higher recovery of the total content than is experienced with vanadium.

About 90 per cent of all the uranium in the ores of the region can be recovered quite simply and at a low processing cost, and this includes the high line ores of the region. The only reason high line ores are now being rejected is because of the difficulty in recovering the vanadium content, not the uranium content, as the uranium can be easily recovered. If it is desired to recover uranium only, the cost of processing a ton of ore for this purpose (about \$8.00 per ton) is approximately one half the cost of processing a ton of ore for vanadium recovery (\$16.00 per ton).

With proper plant equipment for uranium recovery, from 80 to 90 per cent of all the uranium in the ore has been and can be recovered in a finished concentrate for atomic metal refineries. In this type of plant, the uranium is a principal product and vanadium is a by-product, recovered by processing steps following uranium recovery.

Vanadium recovery involves different chemistry and different equipment, and requires the roasting of the ore in a furnace. This roasting often changes the composition of the uranium content so that its subsequent recovery is reduced.

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[fol. 351] However, it is possible to recover a lesser amount of uranium (from 50 to 75 per cent) by following vanadium roasting with a cheap treatment, but the results in a low recovery of vital uranium. However, this does not greatly concern the vanadium operator who is making a profit on vanadium. In the Manhattan District operations, large tonnages of material rejected from plants of this type, in particular the Naturita Plant, were reclaimed, hauled 16 miles, and treated for this unrecovered uranium content. However, the losses in this method of treatment, which amount to from 50 to 30 per cent of the uranium contained in the ore, are not all recoverable in retreatment plants. A large amount is lost in dust and fume, and in soluble uranium reaching the sewers.

Needless to say, double treatment imposes added cost to the Government.

However, it is possible, well developed, and demonstrated that the Colorado ores can be efficiently and cheaply processed for their uranium content, if the needs and interests of vanadium production are subordinated to this purpose. The vanadium industry must be adjusted and continue on a revised and re-engineered basis—content with smaller profits on larger volume, if the full benefit of our uranium resources are to be developed and realized.

Recent disclosures of the result of subordinating uranium production to a position by-product to vanadium and "geared to the vanadium market" have come from engineers connected with the Atomic Energy Commission Raw Ma-

terial Division in Colorado. They reflect the growing concern of these engineers who are directly connected with field operations and the present policy of developing American Resources.

Blair Burwell/hjl
July 8, 1949.

[fol. 352]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 61 FOR IDENTIFICATION

[Handwritten notation—Burwell Memo.—Unit of Union Carbide & Carbon Corp.]

MEMORANDUM ON VANADIUM AND THE
OPERATIONS OF THE UNITED STATES
VANADIUM CORPORATION

The operations of this company, ~~with which I was familiar or had direct contact,~~ can be separated into four different periods of time ~~in which different policies were carried out as to the production and sales of vanadium.~~

The first was the period in which Union Carbide and Carbon Corporation, through its wholly-owned subsidiary, the Electro Metallurgical Company, made investments in vanadium mines and facilities for the production of ferro vanadium, investigated competing sources of vanadium and established its policy for the long-time production of vanadium alloys. This initial period extended from 1926, when the United States Vanadium Company and the Rifle mill was acquired, to 1933 when this operation was closed and the plant dismantled due to surplus stocks of unsold vanadium.

In 1926 the United States Vanadium Corporation was producing approximately 600,000 pounds of V_2O_5 in concentrates and 300,000 pounds of vanadium metal in alloy annually. At that time, the only other producer of vanadium alloys in the United States was the Vanadium Corporation of America. Vanadium Corporation of America

obtained its vanadium from ore and concentrates imported into the United States from a mine in Peru (the Minas Ragas). It converted this foreign supply to ferro vanadium in the United States and sold approximately 1,000,000 pounds of V contained in alloy annually, or the equivalent of 2,000,000 pounds of V_2O_5 .

The sales of Vanadium Corporation of America were [fol. 353] about three times as large as Union Carbide and Carbon Corporation.

The Union Carbide and Carbon Corporation entered into the vanadium business in 1926, because they had investigated the uses of vanadium in steel and believed that the markets and consumption of vanadium could be increased. The original plant, which was purchased, was increased to a capacity of 1,200,000 pounds of oxide annually in 1926 for this reason, which would produce 600,000 pounds of vanadium metal contained in ferro vanadium. The group in Union Carbide and Carbon Corporation which made these decisions were Mr. John B. Hufford (Manager of Purchases), Mr. Benjamin O'Shea, President of Electro Metallurgical Company, and Mr. Giles Mead, Treasurer of Union Carbide and Carbon Corporation. I participated in discussions of the future of this alloy with this group. As far as I know, no questions were raised by the Electro Metallurgical Sales Company at that time as to the ability of the company to sell the vanadium produced at the expanded operations. Mr. Moyer Price was the head of Electro Metallurgical Sales at that time.

In 1927 and 1928, I was called upon, together with Mr. J. R. Van Fleet, to recommend to the company the purchase of additional reserves of vanadium ore. I was advised by Mr. O'Shea that the company believed that the merits of the alloy (vanadium) justified Union Carbide and Carbon Corporation in further increasing their production of ferro vanadium, and they were desirous of taking the leading position in the production and sales of the metal. At that time Vanadium was the leading alloy used in engineering steels and the use of ferro molybdenum or molybdenum in steel was secondary to that of vanadium.

[fol. 354] At that time, I was aware of large quantities of vanadium and uranium contained in dumps and mines near Naturita in Montrose County, Colorado, which could be acquired under advantageous terms. I, therefore, recommended to Mr. O'Shea, Mr. Mead and Mr. Hufford that these properties be purchased. As a result of this recommendation the mine properties in Montrose County were visited by Mr. O'Shea, Mr. Mead, Mr. Hufford, Mr. Van Fleet and myself on or about 1928, and negotiations for the purchase of the properties was initiated through Mr. John B. Hufford and myself. However, before making this acquisition, it was decided that an investigation of Vanadium Corporation of America's mines in Peru should be made to determine the position of this company to produce vanadium in the future. It was discussed that if Union Carbide and Carbon Corporation undertook to become the largest producer of vanadium alloys, this would involve price competition with Vanadium Corporation of America, and it was essential that Union Carbide and Carbon Corporation have accurate knowledge of what Vanadium Corporation of America's reserves and costs were in order to establish the price for vanadium alloy metal that was necessary to sell the contemplated output.

Accordingly, Mr. O'Shea and Mr. Mead arranged for Mr. J. R. Van Fleet to get this information. As such data could not be obtained with the consent of Vanadium Corporation of America, Mr. Van Fleet made a personal examination of the mine in Peru without the knowledge of Vanadium Corporation of America, and obtained a detailed estimate of reserves and cost of production of ore in vanadium.

This report stated that the rich ore of Minas Rogas was largely depleted, with rising costs and estimated Vanadium [fol. 355] Corporation of America costs from 75 to 85 cents per pound of V_2O_5 in concentrates delivered into the United States. The engineering estimates of United States Vanadium Corporation forecast that Electro Metallurgical Sales could sell ferro vanadium at the cost of production of Vanadium Corporation of America and have a profit of twenty cents per pound of V metal. The price of vanadium in oxide in this calculation was \$0.80 per pound.

Based upon this favorable competitive position anticipated by the Van Fleet report, United States Vanadium Corporation made the purchase of mines of the Standard Chemical Company and other groups in Montrose County. As Vanadium Corporation of America was also seeking properties in the same region at this same time, a policy was established of active investigation of small mine holdings in this region with the object of acquiring them to forestall the entry of Vanadium Corporation of America into this potentially important field.

[Marginal handwritten notation—Policy—"Acquire and control all new mining areas which offered an opportunity for future expansion and operation." Obviously if competing operations started (VCA or otherwise) we could not develop or control the operations in new mining areas because such operations were usually based on the best properties and most accessible mines in any new district. Therefore the policy was to purchase such new mines as soon as possible and before they passed in the hands of competitors.]

However, this projected operation ran into difficulties after 1928 because Electro Metallurgical Sales did not sell the increased output from Rifle. In 1927, United States Vanadium Corporation produced 1,243,655 pounds of V_2O_5 in concentrates and Electro Metallurgical Sales disposed of 331,028 pounds of V_2O_5 in ferro vanadium. In 1928 output was 1,234,966, sales 984,994. In 1929, output was 1,204,280, sales 690,444. In 1930 output was 1,080,249, sales 296,716. In 1931 output was 1,726,116, sales 319,902. In 1932 output was 724,225 and sales 144,626. No reduction in the sales price of ferro vanadium was made as originally planned. As a result, at the end of 1932 all operations of United States Vanadium Corporation closed down with 4,000,000 [fol. 356] pounds of vanadium oxide in concentrates in storage unsold. Organization was disbanded and the Rifle Plant was dismantled.

After the operations of United States Vanadium Corporation ceased, the situation which was forecast by J. R. Van Fleet in regard to Vanadium Corporation of America developed. Vanadium Corporation of America was unable

to get enough vanadium from Peru to meet its market requirements.

If the original plan of United States Vanadium Corporation, as to its operations, had been carried out, then United States Vanadium Corporation would have disposed of its excess stock as ferro vanadium in the market which Vanadium Corporation of America was unable to supply and assume the leadership in sales of the alloy which its production potential justified.

However, instead of this Electro Metallurgical Sales began supplying Vanadium Corporation of America with the concentrates it needed to make ferro vanadium, at a price of approximately \$0.80 per pound of vanadium, which was \$0.30 a pound less than would have been realized if Electro Metallurgical Sales had sold the same oxide in ferro vanadium.

This began the second period of United States Vanadium Corporation's operations when production was resumed at mines in Colorado and a new plant was placed in operation at Uravan, Colorado, in 1934. The object of the installations was to supply Vanadium Corporation of America with vanadium concentrates after Rifle stocks were exhausted, as well as to supply Electro Metallurgical Sales with the concentrates needed to make ferro vanadium for the limited Electro Metallurgical Sales.

[fol. 357] In this period, lasting until 1942, United States Vanadium Corporation produced the largest part of American vanadium consumption in the form of concentrates, but at the same time no proportional increase in sales by Electromet occurred.

[Marginal handwritten notation—Policy (one illegible word) from property acquisitions—"Acquire and control all new mining areas which offered an opportunity for future expansion and operation."]

The arrangement of sales of vanadium oxide to Vanadium Corporation of America to support their ferro vanadium sales was not in accordance with the plans and policies with which the vanadium operations of United

States Vanadium Corporation had been started. Therefore, both Mr. Van Fleet and myself objected to this sales arrangement. However, the sales policies on ferro vanadium were directed by Mr. Fred Haggerson (who had replaced Mr. Ben O'Shea as President of Electro Metallurgical Company, and was also President of United States Vanadium Corporation) and Mr. Wm. Priestly of Electro Metallurgical Sales. The policy of vanadium sales had changed with this change in management. Policies in the mining and production of ore and in the acquisition of properties in Colorado were left in the hands of Mr. Van Fleet and myself. For this reason a situation developed of active competition between Vanadium Corporation, of America and United States Vanadium Corporation in the western mining areas at the same time that United States Vanadium Corporation was furnishing Vanadium Corporation of America with vanadium concentrates from its mines at a substantial reduction in the price of the vanadium oxide concentrates to others. The only exceptions to this western policy was when Mr. Van Fleet and myself were directed by Mr. Haggerson to cooperate with Vanadium Corporation of America in the west, such as in the matter of the Dry Valley claims of the Molybdenum Corporation [fol. 358] of America. There was much dispute within the corporation over this matter. In particular Mr. P. Gormely, who had become Vice President of Electro Metallurgical Company, took the same viewpoint as Mr. Van Fleet and myself. As a result of this discussion, carried out in a series of meetings between Gormely, Van Fleet, myself and others, Mr. McQuigg, a metallurgist, was delegated to report on the subject of vanadium uses and sales. This was contained in the McQuigg report.

[Marginal handwritten notation—The arrangements on FeV Sales, of which (one word illegible) had knowledge, or was advised, was that V.C.A. would set V prices in Ferro V (one word illegible) Oxide which E.M. Sales would not undercut and that E.M. Sales would not solicit sales from users of V who were customers of V.C.A.]

My knowledge of this came from several sources, (1) Van Fleet, Gormely, Dutot (1941), and Ben O'Shea.]

(1946)

A third period and change in the operations of United States Vanadium Corporation began in 1942, with World War II, when limitations on vanadium usage by cost disappeared in the emergency need for the alloy in war. Production within the Colorado Plateau field was expanded many times with the rebuilding of the plant at Rifle and the construction of new plants at Durango and Monticello. Soon after a still more urgent need for the ores developed in the work on the atomic bomb.

In the anticipation of the use of uranium, United States Vanadium Corporation had begun the production of uranium in 1939 and by 1943 had large quantities of uranium concentrates, residues and tailings produced or in process for uranium production. As a result of this activity, as well as the reputation of Union Carbide and Carbon Corporation in the chemical processing field, the Manhattan District selected the Union Carbide and Carbon Corporation to undertake a major part of the atomic bomb job. A special group of Carbide executives was selected to do this work under the direction of Mr. J. R. Rafferty, Vice President of Union Carbide and Carbon Corporation and members of the Research Committee of Union Carbide and Carbon Corporation.

[fol. 359] This work involved:

1. The procurement of domestic uranium from the Colorado Plateau.
2. Surveys and appraisal of American and foreign resources of uranium.
3. Operation of the Oak Ridge plant.
4. Operation of uranium separating and refining plants.

At the same time changes were made in the organization of United States Vanadium Corporation which included the replacement of Haggerson by Van Fleet as President of United States Vanadium Corporation, myself as Managing Vice President of United States Vanadium Corporation, W. G. Haldane as Vice President of United States Vana-

dium Corporation, and J. M. Rafferty, Chairman of the Board of Directors of United States Vanadium Corporation. I was also placed on the Research Committee of which Mr. Rafferty was Chairman.

Under this new and wartime needs of vanadium and uranium there was no limiting factor on the production or sale of vanadium, and Electro Metallurgical Sales took no part nor were they included in the production of vanadium and uranium, and the policies of disposal. The production of uranium was under security restrictions.

During this time however, the problem of vanadium markets and sales which had developed in the period between 1933 and 1942 were thoroughly discussed between Mr. Rafferty, Mr. Van Fleet and myself, and with the representatives of the Manhattan District of Army Engineers, including Major General Groves. The situation was discussed and reported as follows:

[fol. 360] In anticipation of the successful development of the bomb and the development of Atomic Energy, engineering investigations indicated that national security depended upon the obtaining of a large domestic supply of uranium. The success in the separation of the isotope 4-235 or of plutonium depended principally on having sufficient U238 to make the separation possible because of low recoveries of the fissionable element. The initial production of the bomb was possible only because of the accumulation of uranium in tailings and residues prior to 1942 gave sufficient metal to work upon the rate of wartime consumption or conversion of U238 into its isotopes far exceeded the rate of production of uranium in ores at that time.

It was, therefore, evident that, following the war, the production of newly mined uranium must be increased greatly to make up for the exhaustion of stockpiled tailings of prior years. As the United States Vanadium ores and the ores of the then known Colorado Plateau contained about eight pounds of vanadium oxide for every pound of uranium oxide, we reported that one of three things would happen:

Either, first, that the vanadium-uranium ores of the Colorado Plateau would have to be produced and treated for recovery of both metals in a quantity about four times the current rate or to yield about 15,000,000 pounds yearly of V_2O_5 as a by-product. This would require that the industry would reduce prices to dispose of its product into new uses where high price had previously prevented its use, and that research in new uses would have to be undertaken;

Or, second, that metallurgy in the treatment of the Colorado Plateau ores would have to be developed where uranium would be recovered by methods independent of vanadium recovery, leaving the vanadium in the form of residues or tailings which could be stored for future processing and recovery if needed. However, this would greatly increase the cost of uranium due to a lack of credit or return on the vanadium thus mined or purchased and stockpiled;

Or, third, that the production of uranium would be reduced to the amount obtainable as a by-product from vanadium production and in proportion to vanadium sales. In this case, due to low, post-war sales of V_2O_5 , it was evident that if American uranium production would be limited to one pound for each eight pounds of V_2O_5 marketed and the total amount of U_3O_8 available for national defense would be less than 300,000 pounds of U_3O_8 yearly. In the case that the No. 3 situation developed, it was forecast that the United States would be utterly dependent on foreign uranium resources, regardless of the fact that the Colorado Plateau had more assured and potential reserves than any other region known of at that time.

The policy-making group at that time (Rafferty, Van Fleet, Burwell and Haldane) also discussed the fact that if the third eventuality developed and sales policies of V_2O_5 were restored at the end of the war, that this might develop into a situation of Government action against the corporation more serious than anti-trust action (which were based purely on commercial considerations) due to the relation of uranium to national security.

The policy group of this period did the following things:

[fol. 362] First: They recommended and obtained approval from the Army Engineers for large-scale pilot plant work to produce uranium independently of vanadium in case it was necessary to use the No. 2 eventuality. This was carried out, and approximately \$375,000 spent in pilot plant work in Grand Junction, new plants designed and full reports made to the Manhattan District.

Second: They set sales arrangements for new products of vanadium and tungsten independently of Electro Metallurgical Sales to remove the limitations on United States Vanadium Corporation's operations of the past. This was done by the creation of the Metal Chemical Division of United States Vanadium Corporation, with sales directed by Carbide and Carbon Chemicals Company (which was headed by Mr. Rafferty).

Third: They recommended and carried out a policy of purchases of uranium-vanadium mine properties for the Government (Army Engineers) as a reserve for the United States; purchasing the Slick Rock properties from the North Continent Mines, and the Calamity Mesa properties from Molybdenum Corporation of America.

The Manhattan District, represented by General Groves, agreed on the policies, and through the Carbide policy group produced large quantities of uranium independent of vanadium production. They also approved and paid for research on uranium recovery from ores independent of vanadium recovery.

The third period ended with the firing of the bomb and the ending of the war.

A fourth period of operations and policy began with the [fol. 363] termination of the Manhattan District Project. In the beginning, all vanadium plants were shut down with the exception of the Rifle plant of the United States Vanadium Corporation, and the Naturita plant of the Vanadium Corporation of America. The marketing of ferro vanadium to war industries ceased and sales to industry started under the same conditions as existed prior to 1942.

The Atomic Energy Commission was organized to take over the work previously done by the Army Engineers,

after two years of suspension of domestic uranium mining and the closing of mines in the Colorado Plateau.

The problem of sales of vanadium again began, but the wartime policy group of United States Vanadium Corporation was superseded by a group directed by Mr. Fred Haggerson (now President of Union Carbide and Carbon Corporation), Mr. Priestly, President of Electro Metallurgical Company, and Mr. Walter Remmers, Vice President of Electro Metallurgical Sales and Vice President of Electro Metallurgical Company. These men became, in effect, the post-war policy group.

The wartime policy group and the new post-war policy group had many conferences and disputes on the fundamental problems of vanadium markets and sales. Both Mr. Priestly and Mr. Remmers took the position, in meetings and discussions, that the use of uranium was questionable and a long time in the future, and that uranium production should be measured only in the quantities which could be produced as a by-product of vanadium production and sales. The dispute grew quite bitter and sometime personal. [Handwritten notation—Vanadium stocks unsold, of U.S.V. began to accumulate and operations were curtailed because of the inability of U.S.V. to dispose of its output.]

[fol. 364] It was during this time, and about 1946, that the anti-trust suit, long pending, was filed. Mr. Van Fleet advised me that he had taken copies of letters and records from his office at 30 East 42nd Street, to his apartment at 20 East 35th Street for the purpose of preserving them. He stated that they would be destroyed if left in the office files. I had many conversations with Mr. Van Fleet at this time, and he discussed the letters and records with me. He did not have any idea at the time he moved these letters to his apartment as to what he would do with them.

He particularly wanted to find out for sure whether Priestly, Haggerson and Remmers would attempt to control future uranium production by a directing or promoting or advising the Government in new policies of the Atomic Energy Commission, which would channel uranium

production through the vanadium companies (eventuality No. 3 previously described). Mr. Van Fleet was ill at that time with cancer, and had lost his oldest boy in the war. He was quite bitter against Haggerson and Priestly in his statements to me.

On or about the early part of 1947, Mr. Van Fleet arranged a meeting with me in Las Vegas, Nevada, to discuss the whole problem. At that meeting he stated that he knew that Priestly was carrying out his previous arrangements with Vanadium Corporation of America, and that he felt that it was hopeless to change the policy established by Priestly with the backing of Haggerson. (Mr. Rafferty was ill and could not help in the matter.) Mr. Van Fleet had had a cancer operation and felt sick. He stated that he had directed Mrs. Helen Orr to send the apartment files [fol. 365] on the vanadium matter to me at my home in Grand Junction if he became ill. He asked me to turn these over to the Government if this was necessary to block the policies of Priestly and Haggerson from holding up the uranium development of the Colorado Plateau.

Soon after this, Mr. Van Fleet died of cancer and the files came to me at Grand Junction. I held these for awhile, until I had checked to my satisfaction that the situation existed as anticipated by Mr. Van Fleet. Thereupon I turned the papers over to the Department of Justice.

I left the company and organized the Minerals Engineering Company at Grand Junction. In the period which followed 1946, I, therefore, had no connection with the operation of United States Vanadium Corporation; however, the events which transpired following 1946 have, in my judgment, confirmed the accuracy of the statements herein.

To begin with, the Atomic Energy Commission in a statement made by Mr. Gustafson in December 1947 stated:

"The Colorado Plateau was the only area in the United States actually producing uranium. Production came from low-grade carnotite ore mined primarily for vanadium, with uranium recovered as by-product. During the war the Manhattan District financed the

construction and operation of two plants for the extraction of uranium from tailings of Colorado vanadium plants and also purchased uranium concentrates produced as a by-product from the vanadium operations. Following the war it was tentatively decided by the Manhattan District to purchase only by-product uranium rather than to stimulate and support increased production by special incentives. This position was based on the fact that the known uranium reserves of the Colorado Plateau were limited and expensive to mine and process and that the only advantage of an accelerated program would be to make this limited supply available sooner. Since the estimated annual production of the Colorado Plateau, even under an accelerated program, would be small in relation to [fol. 366] total U. S. requirements and to supplies available from foreign sources, it appeared more economical to obtain the uranium as a by-product from vanadium operations which were geared to the vanadium market."

Many secret briefs on the problem were given to Senator Millikin and Senator Johnson, at their requests, to combat the Atomic Energy Commission policy of non-development of uranium resources. The newspaper and briefs are the record of this time.

I estimate that the development of the Colorado Plateau was delayed at least five years by the confusion and uncertainty induced by the shift in the policy of the United States Vanadium Corporation after the war. The "Uranium Boom", which developed after, confirms the accuracy of the predictions of United States Vanadium Corporation that the Colorado Plateau is one of the greatest, if not the greatest, in the World. Currently, it is the greatest source of uranium and is stated to be sufficient for our atomic needs. The present-known facts, when they are compared with the early announced policies of the Atomic Energy Commission on uranium procurement, substantiate the wartime policies of period three.

Blair Burwell
January 4, 1956

[fol. 367]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 65 FOR IDENTIFICATION

UNITED STATES VANADIUM CORP.

Grand Junction, Colorado

February 2, 1948

PERSONAL
&
CONFIDENTIALMr. W. E. Remmers
Room 1712,
30 East 42d Street
New York 17, New York

Dear Walter:

I have received the letter of agreement of January 27 and your letter of January 8. The proposed agreement does not follow the spirit and intent of our Niagara discussion on January 15. Therefore, I would suggest to you that my personal situation be considered in accordance with my letter to you of January 13.

The proposed agreement does not give me any protection in the five-year period from arbitrary cancellation and loss of valuable invention rights. The agreement can be cancelled by the USV at any time without payment to me and with the forfeiture of any inventions previously assigned, upon the breach of any one of the provisions which could include, among others, the accidental or casual mention of the USV, U. C. and C. Corporation, or any of its subsidiaries in any publication or article; the credulity of USV in any rumor, gossip, or unsubstantiated report of ill word spoken by me of the Corporation. The agreement includes the printed form of a shotgun general release which, for ten dollars, releases the Corporation from all accounts,

agreements, sums of money etc. which, my attorney advises me, without question includes retirement funds, stock purchase plans etc.

Further, the agreement provides for the assigning of all patent and invention rights, past, present, and future, without regard to inventions which may be made in that portion of my time in the future not spent on Corporation work. And it also requires the obtaining of USV permission to all outside employment, which is, speaking mildly, a rather amazing conception of economic bondage.

I realize that you have had small time to take care of this matter, and realize the temptation of the Law Department to "throw the book" at such an agreement. I will be glad to work out the future settlement of my affairs along the lines of my January 13 letter or on any suggestion on your part which considers my reasonable rights as [fol. 368] inventor to the various processes: such as, the tungsten ore treatment and the Rifle processes.

My attorney suggests a study of my rights and position in this matter of inventions, which I have now requested him to do. I shall be glad to communicate his opinion later, if you should desire.

With best regards,

Yours very truly,

/s/ BLAIR BURWELL
Blair Burwell

BB/hjl

[fol. 369]

FOR INTER-COMPANY CORRESPONDENCE

UNITED STATES VANADIUM CORPORATION

30 EAST 42ND STREET, NEW YORK 17, N. Y.

UCC

To Mr. Blair Burwell
Location Grand Junction, Colorado

Date January 28, 1948

Attention
Copy to

Subject

Dear Blair:

Received your letter of Saturday, January 24th, with the interesting information concerning the news that you have picked up concerning AEC plans. It appears that the information in the West and that available to us here in the East is beginning to coincide to a much greater extent than was originally the case.

Enclosed you will find a letter of agreement with a general release form which have been prepared in the Law Department. The general release should be signed by you and a witness on the front side and notarized on the back. I hope that we will find this arrangement to work out to our mutual benefit.

Aside from the agreement for the moment, the AEC program seems to be taking a somewhat more definite form. Although there are still many uncertainties in the major portions of the program, it is still anyone's speculation as to what plan they may pursue.

With best regards I am

Yours very truly,
/s/ WALTER

WERemmers:
ms

[fol. 370]

January 27, 1948

Mr. Blair Burwell
Grand Junction, Colorado

Dear Mr. Burwell:

Your recent letter~~s~~ have proposed termination of your employment with United States Vanadium Corporation (hereinafter for convenience called "USV"). In a subsequent discussion with you recently it was agreed that you would continue in the employ of USV in the position of Consulting Engineer, with your request for termination applying only to the position of Vice President of USV.

You are to serve in the position of Consulting Engineer for USV for a period of five (5) years from February 28, 1948. Your salary shall be at the rate of Ten Thousand Dollars (\$10,000) per year, payable in monthly instalments. You will be an employee of USV, with the privilege of participation in the Group Insurance Plan and the Retirement Plan. As such employee, you agree to devote as much of your time as we may request, but not more than one-half of your total working time, in performing work for USV, the nature and scope of your duties to be as determined from time to time by the Management of USV. Travelling or other expenses will be reimbursed only when authorized in advance by USV.

In view of your plans to take a vacation in February, your resignation as a Vice President of USV is accepted as of January 31, 1948. Your salary for February will be payable at the rate heretofore existent so that the revised rate of \$10,000 per year will become effective on March 1, 1948.

It is, of course, understood that, since you will devote only one-half your time to working for USV, you will engage in other activities. However, since you are to be an employee of USV, participating in the Retirement Plan, and since you have and may acquire confidential information of a technical nature of USV, you agree not to engage in activities inimical to the interests of USV. Accord-

ingly, you agree to secure the consent of USV to carrying on such other activities as you may engage in during the period of this agreement.

The essence of this agreement is that good relations exist between the parties, and any utterances or conduct by either party of a prejudicial or an antagonistic nature toward the other party will thereupon give such other party the right to terminate this agreement in the manner hereinafter provided.

Any and all inventions, discoveries, process developments and methods of ore beneficiation heretofore made by you but not yet assigned to USV, or hereafter made or discovered by you during the period of this agreement, shall be the exclusive property of USV and shall be promptly disclosed and assigned by you to USV if USV considers the same to be of interest to it. If USV should, at its option, decide that it does not wish any such inventions, discoveries, developments, or methods to be assigned to it, they shall remain your exclusive property.

You agree not to publish any article or other written material mentioning USV, its parent company or any other subsidiary of the parent company, and not to disclose any confidential information of such companies unless USV grants you approval to do so.

All technical data, files, and other records of USV now or hereafter in your possession will be turned over promptly to USV.

The attached general release is an essential part of this agreement, and this agreement shall have no force and effect until such general release shall be executed by you and returned to us.

Each provision of this agreement is material, and the breach or failure to carry out any provision by either party shall give to the other party the right, at its option, to terminate this agreement by giving written notice to the party in default. Any such termination shall not affect any rights arising under this agreement prior to the date of such termination.

Would you please confirm the above agreement by signing one copy of this letter in the place indicated below and returning such copy to us for our files.

Very truly yours,

UNITED STATES VANADIUM CORPORATION

By /s/ W. E. Remmers
Executive Vice President

ACCEPTED:

Blair Burwell

STATE OF COLORADO,
COUNTY OF MESA, ss.:

This certifies that this is a true copy of a letter dated January 27, 1948, from Mr. W. E. Remmers to Blair Burwell, on which was affixed the signature of Mr. W. E. Remmers with which I am familiar.

HELEN J. LAURENT
Notary Public

Date: 11/27/48
My commission expires May 8, 1952.

Copy hjl-1/30/48

[fol. 372]

IN UNITED STATES DISTRICT COURT
 PLAINTIFFS' EXHIBIT No. 67-A FOR IDENTIFICATION
 INTER-COMPANY CORRESPONDENCE

(INSERT NAME)

COMPANY United States Vanadium Corp.

LOCATION New York City.

To Mr. Blair Burwell,

LOCATION United States Vanadium Corp.,
Rifle, Colorado.

ATTENTION

COPY TO

DATE June 6, 1934.

ANSWERING LETTER DATE

SUBJECT PARADOX ESTIMATES

Dear Mr. Burwell:

I had a long talk with Mr. Gormely yesterday about the plants in the Paradox Valley. It appears that the Vanadium Corporation of America is going to be very much disappointed if we do not make some kind of an arrangement with them for using their plant and supplying them with a considerable amount of V_2O_5 . The reasons, however, for erecting a new plant at the Standard Mill site, were considered logical and I think will meet with very little opposition.

It has been decided that we will not reopen any negotiations with the Vanadium Corporation until we have the complete figures on the new plant lay-out. In addition to this I think it is wise to have a complete lay-out, also, on the Rare Metals plant—just what alterations will be necessary, together with the re-arrangement, etc. In making up the sketches for the alterations of the Rare Metals plant be sure to make them as desirable, as far as possible, as the new plant lay-out. I have an idea that alterations along this line will run into more money than you have previously estimated and, of course, it will be to our advantage to have this estimate increased.

I called Mr. Reis of the Vanadium Corporation on the telephone this morning and he was much interested in the outcome of my visit to the Paradox. I told him, frankly, that we were making a complete study of the whole situation and that the old Standard Mill site presented a great many desirable features that his plant did not enjoy. I, also, asked permission to have access to their plant so that we could make our drawings and estimates for its reconstruction. This permission will, undoubtedly, be forthcoming but he said he would have to speak to Mr. Corey about it.

I have told them upstairs, that we would have the figures by August 1st, and all have agreed that we will have to proceed with construction some time this Fall.

Very truly yours,

/s/ J. R. VAN FLEET

EW J.R.Van Fleet

IC

[fol. 373]

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)

COMPANY United States Vanadium Corp.

LOCATION New York City.

To Mr. Blair Burwell,

LOCATION United States Vanadium Corp.,
Rifle, Colorado.

ATTENTION

COPY TO

DATE June 6, 1934.

ANSWERING LETTER DATE

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Very truly yours,

/s/ J. R. VAN FLEET

EW/J.R.Van Fleet

IC

[fol. 374]

IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT No. 67-B FOR IDENTIFICATION
INTER-COMPANY CORRESPONDENCE

(INSERT NAME)

COMPANY U. S. Vanadium Corp.

LOCATION Naturita, Colorado

To Mr. J. R. Van Fleet,

LOCATION 30 East 42nd. Street, New York.

ATTENTION

COPY TO

DATE July 26, 1934.

SUBJECT Comparative Estimate on
cost of erecting and operating
plants at Uravan and the site of
the V.C.A.

Dear Mr. Van Fleet:

We are sending to you an assembly drawing of the proposed plant layout using the location of the Vanadium Corporation as well as prints of the crushing and fine grinding unit as tentatively blocked out. The proposed plant is based on the requirement that an operation equal in efficiency to the proposed Uravan layout be made and on this analysis about the only installations of any value is the roaster and roaster building, the leach building, and the coal mine.

Attached is a detailed summary of the cost of moving ore, salt, and coal to each of the two plant sites covering the total positive and possible ore reserves which show an advantage to the Uravan site of \$123,906. The factors which make up this difference are well known to you but the tabulation brings out the fact that the shorter ore haul to Uravan more than overbalanced the advantage of coal and salt haul. In addition the advantage of installed power at Uravan, both hydroelectric and oil engines, make a difference in the installation.

We made a survey of the mill site at the plant of the Vanadium Corporation of America and came to the con-

clusion that a system of conveyors and storage units as shown would be better than a hillside arrangement, partially because the slope of the hill near the present crusher building is not enough to get the required capacity without going up into the air with a truck ramp. The present crusher and grinding installation is so hopeless from the standpoint of labor attendance and capacity in planning for an extension of capacity that we did not consider the use of that part of the plant.

The arrangement of leaching tanks has been installed in the present leach building with an estimate for the cost of tearing out the present installation of drier, furnace, tanks, and leaching classifiers.

[fol. 375] The Uraivan arrangement of boiler, turbine, fusion furnace etc., fits into the arrangement of the buildings so that this installation has been transferred, bodily as to plan and cost.

The total estimate of \$302,368 is closely the same as the Uraivan layout with the difference in the roaster and a portion of the coal mine. From this total cost we can deduct for equipment and materials useable on hand as follows:

1 Portable Compressor, 300 ft.	3,100
Rod Mill & Motor	3,312
187 KVA Turbine	9,815
Drills, pipe, track and warehouse supplies. Estimated	8,000
Housing at Naturita	4,000
	<hr/>
	\$28,227

In this design, as in the case of the Uraivan design, the capacity can be increased to either two or three roasters without additional cost in ore crushing, leaching, or precipitation.

In comparing the coal mine of the Vanadium Corporation of America with our proposed layout on the Hansen tract we find several advantages in favor of the Hansen

tract. In the first place we can enter the coal on a one-half percent grade in favor of the load in comparison with the necessity of pulling coal up a three percent grade at the Vanadium Corporation Mine.

In considering a supply of coal it is evident that the sale of lump coal in connection with the production of stoker coal will be a considerable factor in obtaining low costs for stoker coal. For this reason on the Hansen layout we have provided a screen bin for lump coal, the location of which is close to the road to the town of Nuela and well situated for its purpose. The location of the VCA mine on a steep hillside away from roads and water is not so favorable for this consideration.

In this connection we investigated the cost of producing coal at the mine in question and although no records are available in the office, the foreman of the coal mine furnished us with enough information so that an estimate can be made.

From the labor used and the supplies consumed, the actual mining of coal cost from \$2.25 to \$2.50 per ton delivered to the tram site.

[fol. 376] We have included in our estimate enough to equip the coal mine with power and mining facilities equal with the Hansen tract.

Ore Reserves and Mining Properties

The Vanadium Corporation owns the following properties located in part in Long Park, in part near our Dolores group of claims:

Maggie C. Lode Claim	Rajah Mill Site
Maggie C. Mill Site	Excelsior
Media	Ocean Spray
Club No. 3	American Eagle
Club Sandwich	Retribution
Rose Bud	Big Chief
North Star	Big Chief No. 2
Black Rock	
Cliff Dweller	
Rajah Lode	

The principal claims of value are those located in or near Long Park. Of these the Maggie C. claim has developed 1600 tons of ore with a possible tonnage of 5,000 tons. In secondary claims near Long Park there is estimated a total of 5,000 tons of possible ore.

The total ore tonnage estimated is as follows:

Dump Ore at Mill	2,000 tons	
Positive Ore, Maggie C.	1,600	3,600
	<hr/>	
Possible Ore		10,000
		<hr/>
Total Ore		13,600 Tons

The summary of the value of the Vanadium Corporation plant is as follows:

Difference in first cost of plant and Coal Mine	64,824
2,000 tons of ore at mining and depletion value	17,500
1,600 tons of positive ore	1,600
Machinery & Equipment	24,227
Value of Housing at Naturita	4,000
	<hr/>
Total	\$112,151

Due to the location in regard to present known ore reserves we can produce vanadium at a lower cost at the Uravan mill site.

[fol. 377] From the standpoint of operating economy we recommend the selection of the Uravan site as the location of a Paradox Plant.

Yours very truly,

/s/ BLAIR BURWELL

[fol. 378]

COMPARATIVE SUMMARY OF ORE RESERVES AND COST OF DELIVERYTOURAVAN AND VANADIUM CORPORATION PLANT SITES

Mine Group	Tons Ore		Total	Grade V ₂ O ₅	Pounds V ₂ O ₅	Est. Mining Cost	Cost per Ton Delivered		Total Cost	
	Positive	Possible					Uravan	V.C.A.	Uravan	V.C.A.
Club Dumps	10,000	6,000	16,000	1.75	560,000	*2.00	2.50	4.00	40,000	54,000
Club Ore	89,471	30,000	119,471	2.01	4,802,734	5.75	6.00	7.50	716,826	896,032
Long Park Dumps	12,200		12,200	2.32	566,080	.50	1.50	2.00	18,300	24,400
Long Park Ore	33,550	75,000	108,550	2.10	4,559,100	5.75	6.75	7.25	732,712	786,988
Jo Dandy Dump	600		600	1.85	22,200	1.00	3.75	2.50	2,250	1,500
Jo Dandy Ore	29,400	23,000	52,400	1.87	1,959,760	5.00	7.75	6.50	406,100	340,600
Monogram	4,700	25,000	29,700	3.00	1,782,000	8.00	11.25	10.00	334,125	297,000
Dolores	5,320	30,000	35,320	2.63	1,857,832	8.00	9.00	10.25	317,880	362,030
Julian Dump	700		700	2.00	28,000	1.00	3.50	4.75	2,450	3,325
Thunderbolt	4,400	5,000	9,400	1.76	330,880	7.00	9.75	8.50	91,650	79,900
Shamrock		12,000	12,000	2.00	480,000	7.00	8.00	9.25	96,000	111,000
Secondary Groups		25,000	25,000	2.00	1,000,000	7.00	8.50	9.50	212,500	237,500
Total Ore	190,341	231,000	421,341		17,948,586			\$	2,970,793	3,170,407
Coal at Uravan					123,580	Tons	2.50		308,950	
Coal at V.C.A.					146,103	"		1.50		219,154
Salt					*34,000	"	7.12	5.95	242,080	202,300
Standard Mill Tailings					16,000	"	.25	1.50	4,000	24,000
Total Cost								\$	3,525,823	3,649,729
Difference in Favor Uravan							\$	123,906		

* Sorting of Dump Ore.

[fol. 379]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 67-C FOR IDENTIFICATION

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)

COMPANY Electro Met. Company LOCATION New York

TO Mr. F. P. Gormely

LOCATION Room 1714

ATTENTION

COPY TO Mr. F. H. Haggerson
Mr. J. M. Price

DATE July 23, 1934

ANSWERING LETTER DATE

SUBJECT

Dear Mr. Gormely:

As recently requested by you, we have made a survey of the potential markets for the future use of vanadium. Our report is based upon facts obtained from large users of alloy steels and data obtained from our own records of shipments of ferrovanadium. Table No. I shows the number of different customers to whom we sold ferrovanadium during the past five years. The inference to be drawn from this table indicates that there has been no wide spread use among steel makers. The quantity shipped to the majority of these customers has been relatively small.

TABLE I

Year	Number of Customers		
	Open Hearth	Special	High Speed
1930	31	11	13
1931	32	11	8
1932	25	15	6
1933	30	12	12
1934 (5 months)	22	8	10

Table No. II shows the quantity of each of our three grades sold during the past five years. The large increase in open hearth shipments during 1933 and 1934 are accounted for by business received principally from two customers, the U.S. Steel Corporation and the Republic Steel Corporation.

TABLE II

Year	Quantity Sold		
	Open Hearth	Special	High Speed
1930	79,632 lbs.	64,980 lbs.	3,772 lbs.
1931	102,036	56,206	470
1932	43,616	21,606	564
1933	227,461	43,399	1,366
1934 (5 mths)	109,895	32,816	1,623

Table No. III shows the percentage of our total shipments to two customers.
[fol. 380]

TABLE III

1934 (five months)

U.S. Steel Corporation	57,485 pounds = 52.2%
Republic Steel Corporation	43,920 pounds = 40.0%

1933

U.S. Steel Corporation	107,728 pounds = 47.4%
Republic Steel Corporation	100,107 pounds = 44.0%

A brief summary of our findings at the leading automobile manufacturers is as follows:

FORD MOTOR COMPANY

There will be no substantial change in tonnage of vanadium steel. Years ago they changed from vanadium to carbon steel for springs. Believe vanadium unnecessary for most purposes as heat treated carbon steel gives as good results. Continuing to use vanadium steel for ring gears. Fatigue tests run on 1.40% chromium 0.12% vana-

dium steel did not show up as well as carbon steel for same purpose. McCarroll thinks vanadium steel will be gradually replaced by carbon steels and cheaper alloy steels.

GENERAL MOTORS CORPORATION

Boegehold, Chief Metallurgist, says vanadium steels are being replaced by cheaper steels. Chrome vanadium still used for rear springs (Chevrolet) but the front end now has helical springs which are silico manganese. Cadillac only is using chrome vanadium valves. Other companies using molybdenum steels for helical springs but think this is where manufacturer is interested in Molybdenum Company.

CHRYSLER

Use SAE 6135 (chrome vanadium) for steering knuckle arms on trucks and Imperial model. Has used this analysis for years. No thought of change. Dodge and Plymouth using oil hardened chrome vanadium steel for transmission gears. Other cars changed about two years ago to nickel molybdenum for case hardening steel due to higher unit pressure on teeth. Change made upon engineering basis. Higher price no consideration. Ring gears and pinnions on all passenger cars made with low chrome nickel vanadium special steel. This will probably be replaced by SAE 4615 (nickel molybdenum) because of higher unit pressure and better machinability. Chrysler only company now using chrome nickel vanadium steel and are paying premium for it. This sells for same price as SAE 4615 which, in some cases, has been used on trucks.

HUPP

Mr. Watson, Chief Metallurgist, says they are making main and second leaf of springs of chrome vanadium steel. Other leaves either silico manganese or manganese chrome. Valve springs and piston pins made of chrome vanadium. They favor vanadium steel but can get desired results with other steels at lower costs. Have considered changing to other steels for piston pins but they have not given as good

[fol. 381] results so they are inclined to favor chrome vanadium.

WHITE MOTOR TRUCKS

Mr. Abbott, Chief Metallurgist, says that they have optional specification for springs calling for silico manganese or chrome vanadium. They use very little chrome vanadium for this purpose since they get the desired properties at lower costs with silico manganese. They use chrome nickel steel for gears.

HUDSON ESSEX

They have not used any vanadium steels for a long time. Believe nickel molybdenum, SAE 4600, less likely to distort in quenching after carburizing. Nickel molybdenum also gives better machinability.

PACKARD MOTOR CAR COMPANY

W. H. Graves, Chief Metallurgist, says that they have not used vanadium steels for many years. For highly stressed parts such as gears, they prefer chrome molybdenum, (SAE 4100). For springs they use silico manganese.

GRAHAM PAIGE

Mr. Kischline, Engineer, said that since their work is principally assembling parts made by other makers they do not specify their own steel as the manufacturers of the parts give them guarantees on quality. They use vanadium steel only in small parts of their steering mechanism. Springs are made of silico manganese and gears are made of chrome molybdenum and nickel molybdenum.

FEDERAL MOTOR TRUCK COMPANY

Mr. Burroughs said that since they purchase standard parts and assemble, he is not familiar with the types of steel used. Their purchased parts are guaranteed by the makers.

The following shows the relative prices of the four grades of steel principally used for high strength parts:

SAE 6100 (Cr 0.80 to 1.10% Va 0.15 to 0.18%)	\$1.20 extra above alloy base of \$2.45 per hundred
SAE 4600 (Ni 1.25 to 1.75% Mo 0.20 to 0.30%)	\$1.05 extra above alloy base of \$2.45 per hundred
SAE 4100 (Cr 0.80 to 1.10% Mo 0.15 to 0.25%)	\$.50 extra above alloy base of \$2.45 per hundred
SAE 9200 (Si 1.80 to 2.20% Mn 0.60 to 0.90%)	.65 extra above carbon base of \$1.90 per hundred

From the above survey it appears that there is a gradual trend away from vanadium steels to less expensive ones such as molybdenum for certain parts and silico manganese and plain carbon for other parts. Many metallurgists favor nickel molybdenum steels for better machinability and more desirable case and less distortion in carburized parts.

[fol. 382] On the other hand, in the manufacture of steel castings there seems to be an increase in the use of vanadium as an alloying element with chromium, nickel or manganese in order to improve impact values and control grain size. The vanadium addition for castings rarely exceeds 0.10%. In the manufacture of high speed tool steel the percentage of vanadium, in many cases, has been increased from 1.25% to 2.00%. These steels are generally made in the electric furnace or induction furnace where vanadium is recovered from the scrap and the consumption of ferrovanadium is relatively small compared with engineering steels generally made in the open hearth furnace.

In drawing conclusions from the information outlined above, it seems that we cannot expect any great increase in the consumption of vanadium for the next two or three years. On the other hand, it is possible that the consumption might fall off very materially since the market depends almost entirely upon the automotive field where economy of construction might eliminate it entirely if all the car builders were to adopt the same engineering principles.

It would therefore seem wise for us to dispose of our vanadium resources either in the form of ferrovanadium

or vanadium oxide as promptly as possible. Because of the standing of the Vanadium Corporation as ferrovanadium producers, it would be to our interest to encourage them as much as possible in their development work. If, for the want of a satisfactory supply of vanadium oxide, they were to discontinue their sales effort in promoting the use of vanadium steel, we would likewise suffer in our ferrovanadium sales because of a falling off in the use of vanadium steels. It seems to me that as long as they continue their efforts in promoting the use of vanadium steels we will benefit both in the direct sale of ferrovanadium and any vanadium oxide we might sell to them.

Very truly yours,

/s/ W. J. PRIESTLEY

WJP:EVL

[fol. 383]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 67-D FOR IDENTIFICATION

[Handwritten notation—Mr. Van Fleet Sorry you did not get a copy before—JP—7 31]

Electro Met. Company

New York

Mr. F. P. Gormely
Room 1714

July 23, 1934

Mr. F. H. Haggerson
Mr. J. M. Price

Dear Mr. Gormely:

As recently requested by you, we have made a survey of the potential markets for the future use of vanadium. Our report is based upon facts obtained from large users of alloy steels and data obtained from our own records of shipments of ferrovanadium. Table No. I shows the number of different customers to whom we sold ferrovanadium during the past five years. The inference to be drawn

from this table indicates that there has been no wide spread use among steel makers. The quantity shipped to the majority of these customers has been relatively small.

TABLE I

Year	Number of Customers		
	Open Hearth	Special	High Speed
1930	31	11	13
1931	32	11	8
1932	25	15	6
1933	30	12	12
1934 (5 months)	22	8	10

Table No. II shows the quantity of each of our three grades sold during the past five years. The large increase in open hearth shipments during 1933 and 1934 are accounted for by business received principally from two customers, the U.S. Steel Corporation and the Republic Steel Corporation.

TABLE II

Year	Quantity Sold		
	Open Hearth	Special	High Speed
1930	79,632 lbs.	64,980 lbs.	3,772 lbs.
1931	102,036	56,206	470
1932	43,616	21,606	564
1933	227,461	43,399	1,366
1934 (5 mths)	109,895	32,816	1,623

Table No. III shows the percentage of our total shipments to two customers.

[fol. 384]

TABLE III

1934 (five months)

U.S. Steel Corporation	57,485 pounds = 52.2%
Republic Steel Corporation	43,920 pounds = 40.0%

1933

U.S. Steel Corporation	107,728 pounds = 47.4%
Republic Steel Corporation	100,107 pounds = 44.0%

A brief summary of our findings at the leading automobile manufacturers is as follows:

FORD MOTOR COMPANY

There will be no substantial change in tonnage of vanadium steel. Years ago they changed from vanadium to carbon steel for springs. Believe vanadium unnecessary for most purposes as heat treated carbon steel gives as good results. Continuing to use vanadium steel for ring gears. Fatigue tests run on 1.40% chromium 0.12% vanadium steel did not show up as well as carbon steel for same purpose. McCarroll thinks vanadium steel will be gradually replaced by carbon steels and cheaper alloy steels.

GENERAL MOTORS CORPORATION

Boegehold, Chief Metallurgist, says vanadium steels are being replaced by cheaper steels. Chrome vanadium still used for rear springs (Chevrolet) but the front end now has helical springs which are silico manganese. Cadillac only is using chrome vanadium valves. Other companies using molybdenum steels for helical springs but think this is where manufacturer is interested in Molybdenum Company.

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Use SAE 6135 (chrome vanadium) for steering knuckle arms on trucks and Imperial model. Has used this analysis for years. No thought of change. Dodge and Plymouth using oil hardened chrome vanadium steel for transmission gears. Other cars changed about two years ago to nickel molybdenum for case hardening steel due to higher unit pressure on teeth. Change made upon engineering basis. Higher price no consideration. Ring gears and pinions on all passenger cars made with low chrome nickel vanadium special steel. This will probably be replaced by SAE 4615 (nickel molybdenum) because of higher unit pressure and better machinability. Chrysler only company now using chrome nickel vanadium steel and are paying premium for it. This sells for same price as SAE 4615 which, in some cases, has been used on trucks.

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FEDERAL MOTOR TRUCK COMPANY

Mr. Burroughs said that since they purchase standard parts and assemble, he is not familiar with the types of steel used. Their purchased parts are guaranteed by the makers.

The following shows the relative prices of the four grades of steel principally used for high strength parts:

SAE 6100 (Cr 0.80 to 1.10% Va 0.15 to 0.18%)	\$1.20 extra above alloy base of \$2.45 per hundred
SAE 4600 (Ni 1.25 to 1.75% Mo 0.20 to 0.30%)	\$1.05 extra above alloy base of \$2.45 per hundred
SAE 4100 (Cr 0.80 to 1.10% Mo 0.15 to 0.25%)	\$.50 extra above alloy base of \$2.45 per hundred
SAE 9200 (Si 1.80 to 2.20% Mn 0.60 to 0.90%)	.65 extra above carbon base of \$1.90 per hundred

From the above survey it appears that there is a gradual trend away from vanadium steels to less expensive ones such as molybdenum for certain parts and silico manganese and plain carbon for other parts. Many metallurgists favor nickel molybdenum steels for better machinability and more desirable ease and less distortion in carburized parts.

[fol. 386] On the other hand, in the manufacture of steel castings there seems to be an increase in the use of vanadium as an alloying element with chromium, nickel or manganese in order to improve impact values and control grain size. The vanadium addition for castings rarely exceeds 0.10%. In the manufacture of high speed tool steel the percentage of vanadium, in many cases, has been increased from 1.25% to 2.00%. These steels are generally made in the electric furnace or induction furnace where vanadium is recovered from the scrap and the consumption of ferrovanadium is relatively small compared with engineering steels generally made in the open hearth furnace.

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Very truly yours,

WJP.EVL

[fol. 387]

INTER-COMPANY CORRESPONDENCE

(INSERT NAME)

COMPANY Electro Met. Company LOCATION New York

To Mr. F. P. Gormely

LOCATION Room 1714

ATTENTION Mr. F. H. Haggerson

COPY TO Mr. J. M. Price

DATE July 23, 1934

ANSWERING LETTER DATE

SUBJECT

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Very truly yours,

/s/ W. J. PRIESTLEY

WJP:EVL

[fol. 391]

IN UNITED STATES DISTRICT COURT

PLAINTIFF'S EXHIBIT NO. 67-E FOR IDENTIFICATION

U. S. Vanadium Corporation,

New York City.

August 10, 1934.

Mr. F. H. Haggerson,
Room 1715, Building.

VANADIUM SITUATION.

Dear Mr. Haggerson:

On January 1, 1934 we had in stock 3,461,000 pounds of V_2O_5 as fused vanadium oxide, and an equivalent of 642,000 pounds V_2O_5 in ferro-vanadium at the various plants—Rifle, Niagara, Columbiana and Welland—making a total inventory of 4,103,000 pounds V_2O_5 available

Fused V_2O_5	—	3,461,000 lbs.
V_2O_5 in FeV	—	642,000 "
Total V_2O_5 on		
1/1/34	—	4,103,000 "

The above total available V_2O_5 is greater by 53,000 lbs. than the total given in my letter of January 30, 1934 due to a correction in the Niagara inventory figures used.

Up to August 1st for this year, sales have amounted to an equivalent of 795,200 lbs. V_2O_5 of which 483,200 lbs. were sold as fused oxide to the Vanadium Corporation of America, and 312,000 lbs. were contained in ferro-vanadium. There is yet to be delivered 550,400 lbs. V_2O_5 on the Vanadium Corporation order, and FeV sales for the last five months of this year may be estimated as containing an equivalent of 123,400 lbs. V_2O_5 .

1934 Sales — Equivalent V_2O_5 —		
Fused V_2O_5 to Aug. 1st	483,200 lbs.	
V_2O_5 in FeV	— 312,000 "	
Balance VCA order	— 550,400 "	
V_2O_5 in FeV estimated		
5 months	— 123,400 "	
<hr/>		
Total 1934	— — —	1,469,000 "

According to the above, on January 1, 1935, we should have available an equivalent of approximately 2,634,000 lbs. V_2O_5 .

V_2O_5 on hand 1/1/34	4,103,000 lbs.
V_2O_5 Sales 1934	1,469,000 "
<hr/>	
Jan. 1, 1935 Available	2,634,000 "

—2—

[fol. 392] *Past Record*—A look at the records may be interesting in consideration of what may be the future trend of the vanadium business. Sales of V contained in ferro, with the V_2O_5 equivalent, for the first seven months of this year have been as follows:

Month	Contained V — Lbs.	Equivalent V_2O_5 Lbs.
January	13,503	25,660
February	14,930	28,380
March	64,792	123,130
April	44,895	85,320
May	10,968	20,840
June	4,519	8,590
July	10,566	20,080
<hr/>		<hr/>
Total	164,173	312,000

Sales of V contained in ferro, with the V_2O_5 equivalent, for the eight years we have owned the U.S. Vanadium Corporation, have been as under:

Year	Contained V Lbs	Equivalent V_2O_5 Lbs.
1927	163,870	311,350
1928	492,500	935,750
1929	345,220	655,920
1930	148,400	281,960
1931	158,710	301,550
1932	70,300	133,570
1933	286,410	544,180
1934 (est.)	229,200	435,400
Total	1,894,610	3,599,680

Sales of ferro-vanadium for the last five months of 1934 are estimated at 65,000 lbs. contained V or an equivalent of 123,400 lbs. V_2O_5 . In addition to the total equivalent of 3,600,000 lbs. V_2O_5 sold in ferro 1,250,000 lbs. has been sold or is reserved for the Vanadium Corporation of America in fused vanadium oxide and 120,000 lbs. in odd lots of fused vanadium oxide, red cake and ammonium metavanadate were sold to the trade.

Total V_2O_5 sold in FeV	3,600,000 lbs.
Sold or reserved for VCA	1,250,000 "
Red Cake and Metavanadate	120,000 "
Total V_2O_5 sold	4,970,000 "

—3—

[fol. 393] At the risk of becoming tiresome, one more tabulation will complete the statistical picture. The tabulation below shows the pounds of V contained in all ferro-vanadium shipments made in the United States, by years, from 1927 to 1933 inclusive. The shipments of the U. S. Vanadium Corporation for each year and the proportion these shipments bear to the whole, are also given:

Year	Total lbs. V in FeV	U.S.V. Lbs. V in FeV	U.S.V. %
1927	1,236,570	163,870	13
1928	1,590,550	492,500	31
1929	1,494,290	345,220	23
1930	713,480	148,400	21
1931	515,220	158,710	31
1932	235,120	70,300	30
1933	747,630	286,410	38
	<hr/> 6,532,860	<hr/> 1,665,410	<hr/> 25

The proportional increase for 1933 is, probably, due to having obtained most of the U. S. Steel Corporation's business for that year. Half of this business was placed with the Vanadium Corporation of America during 1934. For estimating purposes it may be assumed that we will continue to get about 30% of the vanadium business.

Future Sales:

Mr. Priestley states, in his letter to Mr. Gormely, dated July 23, 1934, that no great increase in the use of vanadium can be expected over the next two or three years, but that the use may be expected to decrease. He, also, states that a very slight increased use of vanadium in castings is indicated.

It may safely be assumed that the total vanadium sales for 1934 will equal the 1933 total, or approximately 750,000 lbs. V in FeV, assuming our proportion of these sales as being 30%, then our 1934 sales will equal 225,000 lbs. which is, approximately, as we have estimated on Page 2. Assuming further, that improved business conditions, stimulating the steel industry, may offset the apparent decrease in the use of vanadium alloys, our vanadium sales may be estimated at approximately 225,000 lbs. V in FeV each year for the next two or three years. At least, we should be prepared to furnish this amount, and the situation will be watched closely for evidence of any change toward the upward side.

According to the above assumptions, the Vanadium Corporation of America will require about 1,000,000 lbs. V_2O_5 each year to carry their business. Our future sales to the VCA will, probably, be a question of price and we will, probably, be asked to continue furnishing them with V_2O_5 .

—4—

[fol. 394] as in the past year. The Peruvian Government reduced the export tax on vanadium products the latter part of June at the request of the VCA. The reduction re-established the old export rate in effect prior to 1930. The VCA are preparing to ship the 400 to 500 tons vanadium concentrates now in Grace & Company's warehouse at Callao. The contents of these concentrates is estimated at about 200,000 lbs. V_2O_5 .

The present sales' contract with VCA expires April 1, 1935, and the V_2O_5 reserved for VCA in the estimate on page 1, takes credit for the full amount unfilled of the total order of 1,250,000 lbs. With the imports from Peru, the VCA requirements for 1935 will, probably, be 500,000 lbs. V_2O_5 additional only. For 1936 they should require 1,000,000 lbs.

Effect Upon Stocks:

It is estimated on page 1 that we will have an equivalent of 2,634,000 lbs. V_2O_5 on hand January 1, 1935. Of this amount approximately, 634,000 lbs. may be assumed as already worked up into FeV. The Columbiana operations to maintain stock against sales, will probably be 500,000 lbs. with an additional 500,000 lbs. possibly sold to VCA, the V_2O_5 stock will appear about as under on January 1, 1936.—

V_2O_5 On Hand 1/1/35		2,634,000 lbs.
" In FeV		634,000 "
Available V_2O_5 in		
Fused Oxide 1/1/35		2,000,000 "
1935 Sales FeV	500,000 lbs.	
VCA 1935	500,000 "	1,000,000 "
On Hand 1/1/36		1,000,000 "

It may be seen from the above that although sales might decrease somewhat, our entire stock of V_2O_5 in fused oxide will be exhausted in 1936 if we continue to supply VCA with their requirements.

Paradox Ore Reserves:

We own most of the known vanadium resources in the Paradox Valley. There is, measured and mined out on dumps on our property, a total of 148,170 tons of ore containing 5,300,000 lbs. of recoverable V_2O_5 . In addition, we have partially developed by underground workings and core drilling, 225,000 tons containing 8,100,000 lbs. recoverable V_2O_5 .—

Developed and On Dumps, V_2O_5	5,300,000 lbs.
Partially Developed "	8,100,000 "
Total	13,400,000 "

—5—

[fol. 395] There is, also, a prospective ore tonnage which is more or less problematical, but which can be reasonably estimated at, approximately, 10,000,000 lbs. recoverable V_2O_5 .

There are a number of other properties in the Paradox Valley or vicinity which are, more or less in the prospective state. Two or three of these groups of claims are attractive from a production standpoint. No single group, however, at present has sufficient ore reserves to warrant the installation of a reduction plant. They are somewhat scattered, two groups being in the McIntyre District, and one group in Gypsum Valley.

Paradox Plant Plans:

Several conversations were had with the Vanadium Corporation of America last Spring in reference to making some kind of an arrangement for future production in the Paradox Valley. It was thought desirable to purchase the Naturita Plant of the VCA or make some other production arrangement with that company. From these conversations it was evident that VCA did not feel disposed to make

any kind of an arrangement which would not leave them pretty much in control of the situation. It was, also, evident that any purchase price for the Naturita Plant would, eventually equal the full amount of their investment. Our opinion was that the Naturita Plant was almost a total loss and that VCA would not have sufficient ore reserves to be in a position to dictate.

During the past Summer we have made a complete survey of the Paradox Valley situation, both as regards plant construction, salt and coal supplies, and VCA ore resources. During our conversations VCA has always maintained that they had readily available 3,000,000 pounds recoverable V_2O_5 . Our survey of the situation discloses that they actually have, approximately, 220,000 lbs. recoverable V_2O_5 in developed and possible ore supply on property which they now own.

Preparation for production operations in the Paradox Valley will consist of provision for the mill, salt works, coal mine, mines and roads, and housing.

A survey of the VCA Naturita Plant discloses the fact that with the exception of the roaster installation the plant must be almost entirely rebuilt to put it in an efficient and satisfactory operating condition with regard to recovery and costs. The present plant was not a metallurgical success and the fused oxide produced therein was at a cost in excess of 75¢ per pound of V_2O_5 .

Comparative estimates on reguilding the VCA Plant, and constructing a new plant on our own mill site, shows that the difference in cost will amount to about \$65,000 as follows:

—6—

[fol. 396]

	VCA Naturita	USV Standard
Mill	\$211,255.	\$261,673.
Salt Works	14,091.	14,091.
Coal Mine	10,380.	16,687.
Mines & Roads	32,642.	39,739.
Housing	34,000.	34,000.
Total =	\$302,368.	\$366,192.

The estimate further shows that other equipment and supplies at the VCA Naturita Plant will amount to an additional \$28,000 in favor of the Naturita installation.

The operation at the Standard mill site will be cheaper than at the Naturita site, the principal item in this estimate being the difference in ore haul. About 90% of our ore reserves are adjacent to the Standard mill site. Using the Naturita site this ore must be hauled an additional fifteen (15) miles. It is estimated that the saving in haul alone, at the Standard Mill site, will amount to approximately \$125,000 for the known ore reserves; this figure will be about doubled when the prospective reserves are taken into account, since most of these are adjacent to the Standard site.

The Standard mill site location has been named "URAVAN" being a combination of the abbreviations for "uranium" and "vanadium". If a plant is constructed at that site it will, probably, be known as the Uravan Plant which will be the name of the Postoffice.

In regard to this plant site it might be added that the transportation facilities with the outside, will be greatly facilitated within the next year. The State and County are building a road down the Dolores River direct to Grand Junction which will greatly aid communications with the outside. The use of this direct road to Grand Junction will eliminate freight transfers to the narrow gauge railroad from Montrose to Placerville. This road will, also, make the distance 15 miles closer to Grand Junction than the VCA Naturita plant.

The logical location for a plant in the Paradox Valley, from a production standpoint, is this old Standard site on the San Miguel River, 15 miles below Naturita. It has the advantage, also, of 200 hydro electric horse-power already installed. Regardless of the plant location, however, this power will be utilized in the mining operations.

Although it may not be necessary to begin plant construction in the Paradox this Fall, there is certain preliminary work which can be done now to the best advan-

tage. This consists of re-installing the ditch and flume for the hydro electric power at the mine, the installation of salt works and, possibly, the opening up of a new coal mine.

The salt works and the power will be needed whether an arrangement is made with VCA or not. The water in the Dolores and San Miguel Rivers, this Fall, is lower than ever before known which would, probably, make the power

—7—

[fol. 397] and salt installation cheaper. It is estimated the salt works will cost, approximately, \$14,000 and the power work is estimated at, approximately, \$6,000.

There is not much work needed at the coal mine in order to get that in shape for equipment. This work would, probably, amount to about \$2,000. We have an option on this coal property, expiring September 1st; and the price on this is \$1,200. for the property. It contains an abundance of coal for our purposes and can be cheaply mined.

If an arrangement is made to use the VCA Naturita plant we would not need this coal mine, but one of the strong talking points of VCA last Spring, was the location of the coal at their plant. They do not intend to sell their coal mine with the plant, but figured that we would pay for their coal at approximately, \$3.00 per ton. Owning the above-mentioned, attractive coal property would eliminate any such argument. We, also, think the price of \$1,200 on this coal land is very much less than can be secured later on, if we build the plant at the Standard mill site. It is recommended that this coal property be purchased.

I have discussed with you the other work which I think best to do this Fall, and you have given your permission to proceed with it. The work of cleaning out the power ditch is now under way and the salt ponds will be constructed as soon as we have the right under our Government lease.

Although our present stocks of fused vanadium oxide are sufficient to satisfy demands until 1936, it would seem desirable to economically continue the construction of the Paradox Plant and have it in operation in 1935. By so

doing we can start production with a single unit plant and very slowly accumulate stock above our own needs, which will enable us to be on top of the vanadium situation as regards sales to the VCA, without making any immediate provision for a larger capacity plant.

It can be recommended that 15 or 20 men be employed at the Standard mill site continuously, doing the excavating and building the necessary roads, etc. which will have to be done before actual construction of the plant is begun. This working crew could have the power canal cleaned out, install one of the compressors from Rifle, prepare all foundations and put in the water supply, and be all ready for actual plant construction in the Spring of 1935. Under this plan expenditures would amount to from \$3,500 to \$5,000 per month.

Very truly yours,

EW/J.R. Van Fleet
IC

[fol. 398]

U. S. Vanadium Corporation,

New York City.

August 10, 1934.

Mr. F. H. Haggerson,
Room 1715, Building.

VANADIUM SITUATION.

Dear Mr. Haggerson:

On January 1, 1934 we had in stock 3,461,000 pounds of V_2O_5 as fused vanadium oxide, and an equivalent of 642,000 pounds V_2O_5 in ferro-vanadium at the various plants—Rifle, Niagara, Columbiana and Welland—making a total inventory of 4,103,000 pounds V_2O_5 available

Fused V_2O_5	—	3,461,000 lbs.
V_2O_5 in FeV	—	642,000 "
		<hr/>
Total V_2O_5 on		
1/1/34	—	4,103,000 "

The above total available V_2O_5 is greater by 53,000 lbs. than the total given in my letter of January 30, 1934 due to a correction in the Niagara inventory figures used.

Up to August 1st for this year, sales have amounted to an equivalent of 795,200 lbs. V_2O_5 of which 483,200 lbs. were sold as fused oxide to the Vanadium Corporation of America, and 312,000 lbs. were contained in ferro-vanadium. There is yet to be delivered 550,400 lbs. V_2O_5 on the Vanadium Corporation order, and FeV sales for the last five months of this year may be estimated as containing an equivalent of 123,400 lbs. V_2O_5 .

1934 Sales — Equivalent V_2O_5 —

Fused V_2O_5 to Aug. 1st	483,200 lbs.
V_2O_5 in FeV	— 312,000 "
Balance VCA order	— 550,400 "
V_2O_5 in FeV estimated	
5 months	— 123,400 "
<hr/>	
Total 1934	— — — 1,469,000 "

According to the above, on January 1, 1935, we should have available an equivalent of approximately 2,634,000 lbs. V_2O_5 .

V_2O_5 on hand 1/1/34	4,103,000 lbs.
V_2O_5 Sales 1934	1,469,000 "
<hr/>	
Jan. 1, 1935 Available	2,634,000 "

—2—

[fol. 399] *Past Record*—A look at the records may be interesting in consideration of what may be the future trend of the vanadium business. Sales of V contained in ferro, with the V_2O_5 equivalent, for the first seven months of this year have been as follows:

Month	Contained V — Lbs.	Equivalent V ₂ O ₅ Lbs.
January	13,503	25,660
February	14,930	28,380
March	64,792	123,130
April	44,895	85,320
May	10,968	20,840
June	4,519	8,590
July	10,566	20,080
Total	164,173	312,000
Total	164,173	312,000

Sales of V contained in ferro, with the V₂O₅ equivalent, for the eight years we have owned the U.S. Vanadium Corporation, have been as under:

Year	Contained V Lbs.	Equivalent V ₂ O ₅ Lbs.
1927	163,870	311,350
1928	492,500	935,750
1929	345,220	655,920
1930	148,400	281,960
1931	158,710	301,550
1932	70,300	133,570
1933	286,440	544,180
1934 (est.)	229,200	435,400
Total	1,894,610	3,599,680

Sales of ferro-vanadium for the last five months of 1934 are estimated at 65,000 lbs. contained V or an equivalent of 123,400 lbs. V₂O₅. In addition to the total equivalent of 3,600,000 lbs. V₂O₅ sold in ferro 1,250,000 lbs. has been sold or is reserved for the Vanadium Corporation of America in fused vanadium oxide and 120,000 lbs. in odd lots of fused vanadium oxide, red cake and ammonium metavanadate were sold to the trade.

Total V ₂ O ₅ sold in FeV	3,600,000 lbs.
Sold or reserved for VCA	1,250,000 "
Red Cake and Metavanadate	120,000 "
Total V ₂ O ₅ sold	4,970,000 "

—3—

[fol. 400] At the risk of becoming tiresome, one more tabulation will complete the statistical picture. The tabulation below shows the pounds of V contained in all ferro-vanadium shipments made in the United States, by years, from 1927 to 1933 inclusive. The shipments of the U. S. Vanadium Corporation for each year and the proportion these shipments bear to the whole, are also given:

Year	Total lbs. V in FeV	U.S.V. Lbs. V in FeV	U.S.V. %
1927	1,236,570	163,870	13
1928	1,590,550	492,500	31
1929	1,494,290	345,220	23
1930	713,480	148,400	21
1931	515,220	158,710	31
1932	235,120	70,300	30
1933	747,630	286,410	38
	<hr/> 6,532,860	<hr/> 1,665,410	<hr/> 25

The proportional increase for 1933 is, probably, due to having obtained most of the U. S. Steel Corporation's business for that year. Half of this business was placed with the Vanadium Corporation of America during 1934. For estimating purposes it may be assumed that we will continue to get about 30% of the vanadium business.

Future Sales:

Mr. Priestley states, in his letter to Mr. Gormely, dated July 23, 1934, that no great increase in the use of vanadium can be expected over the next two or three years, but that the use may be expected to decrease. He, also, states that a very slight increased use of vanadium in castings is indicated.

It may safely be assumed that the total vanadium sales for 1934 will equal the 1933 total, or approximately 750,000 lbs. V in FeV. assuming our proportion of these sales as being 30%, then our 1934 sales will equal 225,000 lbs. which is, approximately, as we have estimated on Page 2. Assuming further, that improved business conditions, stimu-

lating the steel industry, may offset the apparent decrease in the use of vanadium alloys, our vanadium sales may be estimated at approximately 225,000 lbs. V in FeV each year for the next two or three years. At least, we should be prepared to furnish this amount, and the situation will be watched closely for evidence of any change toward the upward side.

According to the above assumptions, the Vanadium Corporation of America will require about 1,000,000 lbs. V_2O_5 each year to carry their business. Our future sales to the VCA will, probably, be a question of price and we will, probably, be asked to continue furnishing them with V_2O_5 .

—4—

[fol. 401] as in the past year. The Peruvian Government reduced the export tax on vanadium products the latter part of June at the request of the VCA. The reduction re-established the old export rate in effect prior to 1930. The VCA are preparing to ship the 400 to 500 tons vanadium concentrates now in Grace & Company's warehouse at Callao. The contents of these concentrates is estimated at about 200,000 lbs. V_2O_5 .

The present sales' contract with VCA expires April 1, 1935, and the V_2O_5 reserved for VCA in the estimate on page 1, takes credit for the full amount unfilled of the total order of 1,250,000 lbs. With the imports from Peru, the VCA requirements for 1935 will, probably, be 500,000 lbs. V_2O_5 additional only. For 1936 they should require 1,000,000 lbs.

Effect Upon Stocks:

It is estimated on page 1 that we will have an equivalent of 2,634,000 lbs. V_2O_5 on hand January 1, 1935. Of this amount approximately, 634,000 lbs. may be assumed as already worked up into FeV. The Columbiana operations to maintain stock against sales, will probably be 500,000 lbs. with an additional 500,000 lbs. possibly sold to VCA, the V_2O_5 stock will appear about as under on January 1, 1936.—

V ₂ O ₅ On Hand 1/1/35		2,634,000 lbs.
" In FeV		634,000 "
		<hr/>
Available V ₂ O ₅ in		
Fused Oxide 1/1/35		2,000,000 "
1935 Sales FeV	500,000 lbs.	
VCA 1935	500,000 "	1,000,000 "
		<hr/>
On Hand 1/1/36		1,000,000 "

It may be seen from the above that although sales might decrease somewhat, our entire stock of V₂O₅ in fused oxide will be exhausted in 1936 if we continue to supply VCA with their requirements.

Paradox Ore Reserves:

We own most of the known vanadium resources in the Paradox Valley. There is, measured and mined out on dumps on our property, a total of 148,170 tons of ore containing 5,300,000 lbs. of recoverable V₂O₅. In addition, we have partially developed by underground workings and core drilling, 225,000 tons containing 8,100,000 lbs. recoverable V₂O₅—

Developed and On Dumps, V ₂ O ₅	5,300,000 lbs.
Partially Developed	8,100,000 "
	<hr/>
Total	13,400,000 "

—5—

[fol. 402] There is, also, a prospective ore tonnage which is more or less problematical, but which can be reasonably estimated at, approximately, 10,000,000 lbs. recoverable V₂O₅.

There are a number of other properties in the Paradox Valley or vicinity which are, more or less in the prospective state. Two or three of these groups of claims are attractive from a production standpoint. No single group, however, at present has sufficient ore reserves to warrant the installation of a reduction plant. They are somewhat scattered, two groups being in the McIntyre District, and one group in Gypsum Valley.

Paradox Plant Plans:

Several conversations were had with the Vanadium Corporation of America last Spring in reference to making some kind of an arrangement for future production in the Paradox Valley. It was thought desirable to purchase the Naturita Plant of the VCA or make some other production arrangement with that company. From these conversations it was evident that VCA did not feel disposed to make any kind of an arrangement which would not leave them pretty much in control of the situation. It was, also, evident that any purchase price for the Naturita Plant would, eventually equal the full amount of their investment. Our opinion was that the Naturita Plant was almost a total loss and that VCA would not have sufficient ore reserves to be in a position to dictate.

During the past Summer we have made a complete survey of the Paradox Valley situation, both as regards plant construction, salt and coal supplies, and VCA ore resources. During our conversations VCA has always maintained that they had readily available 3,000,000 pounds recoverable V_2O_5 . Our survey of the situation discloses that they actually have, approximately, 220,000 lbs. recoverable V_2O_5 in developed and possible ore supply on property which they now own.

Preparation for production operations in the Paradox Valley will consist of provision for the mill, salt works, coal mine, mines and roads, and housing.

A survey of the VCA Naturita Plant discloses the fact that with the exception of the roaster installation the plant must be almost entirely rebuilt to put it in an efficient and satisfactory operating condition with regard to recovery and costs. The present plant was not a metallurgical success and the fused oxide produced therein was at a cost in excess of 75¢ per pound of V_2O_5 .

Comparative estimates on reguiling the VCA Plant, and constructing a new plant on our own mill site, shows that the difference in cost will amount to about \$65,000 as follows:

[fol. 403]

	—6—	
	VCA Naturita	USV Standard
Mill	\$211,255.	\$261,673.
Salt Works	14,091.	14,091.
Coal Mine	10,380.	16,687.
Mines & Roads	32,642.	39,739.
Housing	34,000.	34,000.
	<hr/>	<hr/>
Total =	\$302,368.	\$366,192.

The estimate further shows that other equipment and supplies at the VCA Naturita Plant will amount to an additional \$28,000 in favor of the Naturita installation.

The operation at the Standard mill site will be cheaper than at the Naturita site, the principal item in this estimate being the difference in ore haul. About 90% of our ore reserves are adjacent to the Standard mill site. Using the Naturita site this ore must be hauled an additional fifteen (15) miles. It is estimated that the saving in haul alone, at the Standard Mill site, will amount to approximately \$125,000 for the known ore reserves; this figure will be about doubled when the prospective reserves are taken into account, since most of these are adjacent to the Standard site.

The Standard mill site location has been named "URAVAN"-being a combination of the abbreviations for "uranium" and "vanadium". If a plant is constructed at that site it will, probably, be known as the Uravan Plant which will be the name of the Postoffice.

In regard to this plant site it might be added that the transportation facilities with the outside, will be greatly facilitated within the next year. The State and County are building a road down the Dolores River direct to Grand Junction which will greatly aid communications with the outside. The use of this direct road to Grand Junction will eliminate freight transfers to the narrow gauge railroad from Montrose to Placerville. This road will, also, make the distance 15 miles closer to Grand Junction than the VCA Naturita plant.

The logical location for a plant in the Paradox Valley, from a production standpoint, is this old Standard site on the San Miguel River, 15 miles below Naturita. It has the advantage, also, of 200 hydro electric horse-power already installed. Regardless of the plant location, however, this power will be utilized in the mining operations.

Although it may not be necessary to begin plant construction in the Paradox this Fall, there is certain preliminary work which can be done now to the best advantage. This consists of re-installing the ditch and flume for the hydro electric power at the mine, the installation of salt works and, possibly, the opening up of a new coal mine.

The salt works and the power will be needed whether an arrangement is made with VCA or not. The water in the Dolores and San Miguel Rivers, this Fall, is lower than ever before known which would, probably, make the power

—7—

[fol. 404] and salt installation cheaper. It is estimated the salt works will cost, approximately, \$14,000 and the power work is estimated at, approximately, \$6,000.

There is not much work needed at the coal mine in order to get that in shape for equipment. This work would, probably, amount to about \$2,000. We have an option on this coal property, expiring September 1st; and the price on this is \$1,200. for the property. It contains an abundance of coal for our purposes and can be cheaply mined.

If an arrangement is made to use the VCA Naturita plant we would not need this coal mine, but one of the strong talking points of VCA last Spring, was the location of the coal at their plant. They do not intend to sell their coal mine with the plant, but figured that we would pay for their coal at approximately, \$3.00 per ton. Owning the above-mentioned, attractive coal property would eliminate any such argument. We, also, think the price of \$1,200 on this coal land is very much less than can be secured later on, if we build the plant at the Standard mill site. It is recommended that this coal property be purchased.

I have discussed with you the other work which I think best to do this Fall, and you have given your permission to proceed with it. The work of cleaning out the power ditch is now under way and the salt ponds will be constructed as soon as we have the right under our Government lease.

Although our present stocks of fused vanadium oxide are sufficient to satisfy demands until 1936, it would seem desirable to economically continue the construction of the Paradox Plant and have it in operation in 1935. By so doing we can start production with a single unit plant and very slowly accumulate stock above our own needs, which will enable us to be on top of the vanadium situation as regards sales to the VCA, without making any immediate provision for a larger capacity plant.

It can be recommended that 15 or 20 men be employed at the Standard mill site continuously, doing the excavating and building the necessary roads, etc. which will have to be done before actual construction of the plant is begun. This working crew could have the power canal cleaned out, install one of the compressors from Rifle, prepare all foundations and put in the water supply, and be all ready for actual plant construction in the Spring of 1935. Under this plan expenditures would amount to from \$3,500 to \$5,000 per month.

Very truly yours,

EW/J.R.Van Fleet
IC

[fol. 405]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 67-F FOR IDENTIFICATION

General Mining Department,

New York City,

Mr. F. P. Gormely,
Room 1715, Building.

April 5, 1934.

VANADIUM SITUATION, and
VANADIUM CORPORATION OF AMERICA.

Dear Mr. Gormely:

On January 30, 1934, I sent you a memorandum covering the vanadium situation. The vanadium sales since January 1st have been about as estimated in this memo; ferro-vanadium sales to April 1st have been, approximately, 94,000 pounds contained V, and the sales estimate for this period was 85,010 pounds contained V in ferro.

The Vanadium Corporation of America has taken delivery of 457,223 pounds of V_2O_5 , with an additional car to go forward on April 6th, making a total of approximately, 520,000 pounds of V_2O_5 against their option on fused oxide of up to 1,250,000 pounds V_2O_5 content.

The vanadium sales will be carefully watched for an indication of altering the policy for renewed production in the Paradox Valley. Any immediate change in this policy will depend upon whether the Vanadium Corporation of America will purchase fused vanadium oxide from us in 1935.

According to the schedule on Page 3 of my memo of January 30th it may be noted that we will have a stock of a little over 1,000,000 pounds of V_2O_5 at the end of 1935 if the vanadium sales for 1934 and 1935 are up to estimates. It is, therefore, certain that a plant should be in operation in the Paradox Valley before the end of 1935, under any circumstances. If the Vanadium Corporation of America

continues to purchase vanadic acid during 1935, the plant in the Paradox Valley should be producing by the middle of the Summer of 1935.

In many respects it would be desirable to erect a single roaster plant in the Paradox Valley this Summer, and be ready to increase this capacity when consumption warranted. This procedure would enable us to have worked out all of the treatment changes necessary for the Paradox ores, and put us in the position of knowing just what to do under any circumstances, and of being able to do so speedily.

[fol. 406] Negotiations have been carried on with the Vanadium Corporation of America for procuring their Rare Metals plant at Naturita in the Paradox Valley. In some respects it would be very desirable to get the Vanadium Corporation of America out of that field as their ownership of that plant will always be a menace and an invitation for production of ores from independently owned properties. The Vanadium Corporation of America do not own enough ore in the Paradox Valley to enable them to operate their plant successfully, but by encouraging the production of ore from outlying properties a considerable production of vanadic acid could be made.

As yet, the Vanadium Corporation of America has not signified their intention to continue purchasing oxide from us, nor have they placed a valuation on their plant. They have indicated that they do not wish to be "out of the picture" in the Paradox Valley. So far, I have offered two proposals for discussion, and the Vanadium Corporation has offered one. The proposals I have made depend entirely upon whether the Vanadium Corporation will continue to purchase oxide. The amount has been variously discussed at from 3,000,000 to 5,000,000 pounds over a period not to exceed five (5) years. The tentative price offered was ninety cents (90¢) per pound V_2O_5 .

Proposal No. 1:

I proposed that the Vanadium Corporation purchase from us from 3,000,000 to 5,000,000 pounds of oxide over

a period of not to exceed five (5) years. The Vanadium Corporation would deliver their Paradox plant to us with the coal mine. We would purchase all ore from the Vanadium Corporation delivered to us at the plant, having a V_2O_5 of 2% or over.

We would pay them for the ore the difference between the cost of manufacturing the acid and the sales' price. For instance, if it cost 45¢ per pound V_2O_5 to process the ore then we would pay them the difference between the sales' price of 90¢ and the cost, or 45¢ per pound V_2O_5 contained in the ore. On a 2% ore with a recovery of 32 pounds V_2O_5 per ton, the amount paid for the ore would be \$14.40 per ton. The estimated cost of delivering this ore to the plant is \$6.00 per ton. The profit per ton to the Vanadium Corporation on their ore would, therefore, be \$8.40 per ton. On higher grade ore the profit would be correspondingly greater.

The Vanadium Corporation has maintained that their properties contain an equivalent of 100,000 tons of 2% ore. At that rate they would net a total of \$840,000. for their property, on their investment in the Paradox Valley of approximately \$425,000.

This proposal has been discussed in detail and I think they are very much in favor of it, if they were sure they had the ore to deliver. I do not think the Vanadium Corporation really think they have 100,000 tons of ore of a commercial grade, and realize that they would not come out very well with only a small tonnage on this kind of a proposition.

[fol. 407]

Proposal No. 2:

As an alternative I submitted that the Vanadium Corporation would purchase from 3,000,000 to 5,000,000 pounds of oxide as in Proposal No. 1 above, and they would place a valuation on their plant which would be acceptable to us. We would then apply thirty cents (30¢) per pound of

V₂O₅ delivered, against the purchase price of the plant until the purchase price of the property had been satisfied.

They have not, as yet, discussed a valuation for their plant and property but would, probably, want to put it in at the amount of their investment. This would not be acceptable to us as a straight property value, but there may be other advantages in paying a high price for the property if it would result in their retirement from the field.

Proposal No. 3:

The Vanadium Corporation will desire to retain some interest in the Paradox Valley, if possible. They have proposed that we have a joint operation, using their plant. Under this plan they propose to sell us a half interest in the plant, retaining the coal mine.

They realize that we will have more ore to process than they will, and they propose that the Vanadium Corporation will sell coal to the joint operation and after all of their ore has been processed we will continue to process ore from our properties and purchase coal from them at an agreed upon price. The price suggested was \$3.00 per ton. They would always retain a half interest in the plant and be able to process ores produced from other properties, which they might purchase.

It is estimated that requirements of coal for power and processing would equal about one (1) ton of coal for each ton of ore processed. With a price of \$3.00 per ton on the coal the Vanadium Corporation would be making about \$2.00 per ton which we would pay as a royalty for processing our ore in the plant in which we would own a half interest. This proposition, although discussed, of course we cannot seriously consider.

I have stated to the Vanadium Corporation that, in my opinion, the only basis that we can get together on is with the provision that the Vanadium Corporation will continue to purchase oxide from us, and that in case some such

arrangement cannot be made it would more to our advantage to erect our own plant on our own property.

I have stated that the difference in the cost of moving our plant from Rifle and altering the Naturita plant will have no bearing on the cost of producing acid in the Paradox. I called attention to the fact that a plant erected on our own site would be closer to our largest tonnage, and that there would be a corresponding saving in truck haul. The Vanadium Corporation understand that I am going West shortly and will look over the situation with these proposals in mind.

[fol. 408] If we are to erect our own plant in the Paradox Valley and have it in operation by the middle of next year, we should begin construction thereof this late Summer or early Fall. I think it would be wise when I return from the West to definitely state to the Vanadium Corporation that we are going to begin construction of a plant in the Paradox Valley. By that time the Vanadium Corporation will, probably, know whether they will want to continue to purchase oxide or not, and will probably, want to dispose of their Naturita plant.

Very truly yours,

EW/J. R. Van Fleet
IC

[fol. 409]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 80 FOR IDENTIFICATION

January 19, 1943

Mr. G. B. Walker
Electro Metallurgical Co.
30 East 42 Street
New York City

Dear Sir:

Re: Vanadium for Canada

You undoubtedly know that the new allocation system in Canada resulted in our being eliminated from the Canadian market during the month of January. (Our customer, Atlas Steels Ltd., requested 4000 lbs. for shipment from us during January which you dropped from the list and replaced by ferro vanadium from your and Vanadium Corporation's production.)

Atlas Steels Ltd. has now applied for 5000 pounds of vanadium to be received during February and they insist that they want to receive our material.

Our attorney in Ottawa, Mr. Redmond Code, contacted Mr. Bateman today in order to find out whether these 5000 pounds from Continental Ore Company are included in your list for February.

Mr. Bateman was unable to give him this information and suggested to Mr. Code that we get in touch with you regarding this matter since your Welland firm is handling this matter under your direction.

We wish to say that we have these 5000 pounds of V *ready for immediate shipment* and expect you to let us ship this material to Canada as requested by our customer.

We will telephone you tomorrow morning in order to learn your reply.

Thank you for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 410]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 81 FOR IDENTIFICATION

January 29, 1943

Mr. M. D. Arrouet
Electro Metallurgical Company
30 East 42nd Street
New York, N.Y.

Re: Vanadium for Canada

Dear Mr. Arrouet:

We wish to thank you for your telephone call of yesterday in regard to the above matter.

You requested us to contact the Electro Metallurgical Company in Welland and submit our offer to them.

You will admit that even if the new set-up in Canada covering the distribution of ferro vanadium has been temporarily sanctioned by the Canadian Metals Controller, such policy still is absolutely contrary to that of Washington.

Your firm and ours are competitors and there can be no question of our eliminating ourselves from the market.

Competitors can and should cooperate in emergency periods such as these, but this should not lead to collusion or coercion in a field which has already attracted the attention of the U. S. Department of Justice because of its monopolistic character.

We believe that our letter of January 19 addressed to Mr. G. B. Walker of your organization was a very fair one. We believe also that our suggestion to the WPB Vanadium Section that we ship the material we had prepared for our customer in Canada, thereafter withdrawing *voluntarily* from the Canadian market, was a very fair one.

Apparently Union Carbide considers itself so influential at the present time that it is trying to eliminate even the infinitesimal participation of an outsider in the vanadium market. However, we feel satisfied that such an attitude will not have the desired effect.

We want to thank you for the personal interest you have taken in this matter, and assure you that we will not forget it.

Very truly yours

CONTINENTAL ORE COMPANY

hjl/ek

Henry J. Leir

[fol. 411]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 82 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

February 10, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

The Electro Metallurgical Company of your city have recently referred to me correspondence addressed to them from your company regarding vanadium for Atlas Steels Limited.

We note from this correspondence that you prepared 5000 pounds of V for immediate shipment and that you request we arrange for shipment.

Will you kindly quote us a price on this material laid down at Welland together with specification and we will see what arrangement we can make to release this shipment for Atlas Steels.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 412]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 83 FOR IDENTIFICATION

February 11, 1943

Electro Metallurgical Company of Canada Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Vanadium for Atlas Steels Ltd.

We received your letter of February 10 and wish to inform you that we have ready for shipment a quantity of 13,444 lbs. V which we intended to ship to Atlas Steels Ltd.

Our price is \$2.40 per lb. of metallic V contained, FOB border.

The material is of the same quality as we have been supplying to Atlas in the past and we would suggest that we ship 5,000 lbs. of V this month, 5,000 lbs. of V in March and the remainder of 3,444 lbs. in April.

We would appreciate hearing from you.

Thank you for your kind cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 413]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 84 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

February 17, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Attention: Mr. H.J. Leir

Gentlemen:

With reference to recent correspondence regarding Vanadium Oxide for Atlas Steels Limited, Welland, your original letters indicate that you have prepared 5000 pounds of contained V for shipment on this account, and we are prepared to take in this quantity to apply on Atlas Steel's March quota.

We understand your price is \$2.40 per pound of contained V, U.S. funds, f.o.b. Welland, Ontario in bond and that the material will conform to the following approximate analysis:

V_2O_5	—	78/82%
Fe_2O_3	—	14%
Al_2O_3	—	1%
TiO_2	—	2%
SiO_2	—	1%

and that the material is packed in containers containing approximately 15 pounds of V.

If you are prepared to accept on order the above quantity at the price and specifications afore mentioned, please

wire us so that we may arrange for release against the March quota.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 414]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 85 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE
COMPANY

[Western Union Form]

STRAIGHT WIRE

FEBRUARY 18, 1943

MR. C. S. BRAVIN
ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED
WELLAND, ONTARIO
CANADA

YOURS FEBRUARY SEVENTEENTH RECEIVED.
ACCEPT ORDER FIVE THOUSAND POUNDS VANADIUM
CONTAINED TO BE APPLIED TO ATLAS
STEELS MARCH QUOTA. SHIPMENT CAN BE
MADE IMMEDIATELY. THANKS FOR YOUR CO-
OPERATION.

CONTINENTAL ORE COMPANY

[fol. 415]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 86 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED
WELLAND, ONTARIO

February 23, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

We have received advice from the Metals Controller's office, Ottawa that they have made application to W.P.B. for the release of 5000 pounds of contained vanadium in Van-ex for shipment to us during March.

You will, no doubt, receive advice from W.P.B. direct if and when this material is released by them. Upon receipt of this advice will you please wire us so that we may issue our regular order to you.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice President.

C. S. Bravin:JG

446

[fol. 416]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 87 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE
COMPANY

[Western Union Form]

STRAIGHT WIRE

MARCH 1, 1943

MR. C. S. BRAVIN VICE PRESIDENT
ELECTRO METALLURGICAL COMPANY
OF CANADA LIMITED
WELLAND ONTARIO
CANADA

RECEIVED THIS MORNING WPB ALLOCATION 5000
POUNDS VANADIUM. MATERIAL READY FOR IM-
MEDIATE SHIPMENT.

CONTINENTAL ORE COMPANY

[fol. 417]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 88 FOR IDENTIFICATION

March 3, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Gentlemen:

Re: Van-Ex/Your Order #EW 62287

We received your above-named order for 5000 lbs. of V
contained in Van-Ex and wish to inform you that shipment

will go forward immediately, freight prepaid to United States Border. The freight beyond the U.S. Border as well as any Canadian duties and taxes are for your account.

Thank you again for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 418]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 89 FOR IDENTIFICATION

March 10, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. J. E. Thorpe, Office Manager

Gentlemen:

Re: Vanadium for Atlas Steels
Your Order No. EW-62287

We just received the freight bill for the above shipment (our invoice no. 5646) and learned that inadvertently this shipment was made to Atlas Steels Ltd., Welland, Ontario, Canada instead of to Electro Metallurgical Company of Canada, Welland, Ontario.

The mistake is due to the fact that our shipping department is accustomed to shipping all our vanadium for Canada to Atlas Steels, Welland and therefore failed to observe the change in instructions. A second contributing

factor to the error is that this material has been ready for shipment for more than two months and the boxes had already been stamped with the address of Atlas Steels.

We are extremely sorry that this oversight occurred but trust that this error will not inconvenience you.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 419]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 90 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE
COMPANY

[Western Union Form]

DAY LETTER

March 19, 1943

MR. C. S. BRAVIN VICE PRESIDENT
ELECTRO METALLURGICAL CO. OF CANADA
WELLAND ONTARIO CANADA

CAN MAKE IMMEDIATE SHIPMENT OF UP TO 5000
POUNDS VANADIUM CONTAINED IN VAN-EX AND
WOULD APPRECIATE YOUR GIVING US AN ORDER
TO FILL PART OF ATLAS STEELS REQUIREMENTS
DURING APRIL. THANK YOU.

CONTINENTAL ORE COMPANY

[fol. 420]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 91 FOR IDENTIFICATION

[Western Union Form]

NBM51 11=WELLAND ONT 20 1022A
CONTINENTAL ORE CORP=
500 FIFTH AVE=

1943 MAR 20 AM 11 16

RETEL NINETEENTH UNABLE TO ACCEPT YOUR
OFFER FIVE THOUSAND POUNDS VANADIUM=

ELECTRIC METALLURGICAL CO. BRAVIN.

[fol. 421]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 92 FOR IDENTIFICATION

April 26, 1943

Office of the Metals Controller
Department of Munitions and Supply
Ottawa, Ontario
Canada

Attention: Mr. C. B. Dawson

Gentlemen:

Re: Vanadium

We take pleasure in referring to a letter written to us by the Dominion Foundries and Steel under date of April 24 and of which you received a copy.

We understand that the Electro Metallurgical Sales Co. of Canada acts as your agent regarding the importation of vanadium products into Canada. We further understand, however, that this arrangement is not intended to create a monopoly with regard to the Canadian market and that

Electromet is required to follow the wishes of the Canadian steel mills as far as quality and supplier are concerned.

In other words, it is our understanding that if a steel mill requests, from your office, an allocation for a certain quantity of ferro vanadium and specifies the producer they wish to receive it from, Electromet is to follow these instructions.

As you can see from the copy of our letter to Dominion Foundries and Steel, dated April 21, our ferro vanadium is of a much higher grade than that produced by other manufacturers in this country and has, the same as our vanadium silicide, definite advantages, particularly with regard to its high purity.

These products are being manufactured in the Langeloth, Pa. plant of the Climax Molybdenum Co.

We informed a number of our customers among the Canadian steel mills that in order to obtain our high grade products they should request certain definite quantities of our material in their next allocations and we trust that we will be notified through the Electro Metallurgical Co. to ship these quantities so requested.

We would very much appreciate your confirming that the situation as described above with regard to the Canadian market is correct and that the procedure suggested by us is the one to be followed.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 422]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 93 FOR IDENTIFICATION

[Letterhead of Department of Munitions and Supply,
Ottawa, Canada]

April 29, 1943.

Continental Ore Corporation,
500 Fifth Avenue,
New York, N.Y.

re: Vanadium

Dear Sirs,

Through the courtesy of Mr. W. Davies, Dominion Foundries and Steel, we received a carbon of your letter of the 26th addressed that firm and we now acknowledge receipt of yours of the 26th addressed to the Metals Controller.

In Mr. Davies' reply to you of the 24th it is not made evident, possibly it is not known to Mr. Davies, that Electro Metallurgical Company of Canada was requested by the Metals Controller to place its facilities at the disposal of Canada. By the arrangement now in being, Electro-Metallurgical Company is required to finance and to purchase vanadium products allocated to Canada by the War Production Board and to store and distribute this allocation as desired by the Metals Controller. This is done at no cost to Canada.

Having the above in mind, we suggest it is advisable you make your own arrangements with Electro-Metallurgical Company.

Yours truly,

/s/ C. B. Dawson

C. B. Dawson,
for G. C. Bateman,
Metals Controller.

CBD/MIR.

[fol. 423]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 94 FOR IDENTIFICATION

May 4, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Re: Vanadium for Canada

Gentlemen:

We refer to our previous correspondence and the order for 5000 lbs. of V contained in Van-Ex which we received from you at the beginning of March. We understand that Atlas Steels has requested various amounts of our material since that time but we have not received a new order from you.

We still have 6800 lbs. of vanadium contained in Van-Ex ready for shipment and would appreciate it if you could see your way clear to giving us an order so that we can ship this material to Canada. You will remember that we originally had about 12000 lbs. of V and this is the balance. We do not contemplate making any additional quantities.

We have prepared this material especially for Atlas Steels and it is certainly a pity to allow it to remain in a warehouse when it can be put to good use.

In any case, it would be better to ship this material to Welland now so that it will be ready for immediate consumption. If the quantity is too much for one month, we suggest that we bill it for June and July but it should certainly not stay here any longer.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 424]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 95 FOR IDENTIFICATION

May 17, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: High Grade Ferro Vanadium for
Atlas Steels Ltd., Welland, June

We have been informed by Atlas Steels Ltd. that they have requested 2000 lbs. of V contained in our high grade ferro vanadium to be shipped to them in June.

We assume that in this case also the order will be placed by you. We therefore wish to inform you that our material is priced at \$2.90 (U.S. currency) per lb. of vanadium contained, FOB United States-Canadian border.

The material contains

V 70 to 80%
C max. .10%

Shipment can be made as soon as order and allocation are received.

May we please have your order.

Thank you for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

[fol. 425]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 96 FOR IDENTIFICATION

May 20, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. W. Lathrop, Metallurgical Engineer

Gentlemen:

Re: High Grade Ferro Vanadium for
Atlas Steels Ltd., Welland/June

Thank you for your letter of May 19 from which we see that Mr. C. S. Bravin is at present on a trip in Western Canada.

As you know, according to the new regulations, requests for allocations for ferro vanadium are to be filed in Washington on the seventh of the current month instead of, as heretofore, on the twentieth of the preceding month.

We assume that Mr. Bravin will be back by that time. If not, we would very much appreciate your looking into this matter so that the necessary filing will be done in Washington, thus allowing us to make delivery of these 2000 lbs. of V in June.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk
cc Atlas Steels

[fol. 426]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 97 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

June 1, 1943.

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Attn: Mr. M. Wolf

Gentlemen:

We hasten to acknowledge your day letter of June 1 in connection with 2,000 lbs. high grade ferrovanadium.

We are holding this matter in abeyance for the next few days within which time our Mr. C.S. Bravin is expected back from his western trip.

Yours very truly,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED

/s/ WHITING LATHROP
Metallurgical Engineer

W.Lathrop:ML

[fol. 427]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 98 FOR IDENTIFICATION

Charge to the account of CONTINENTAL ORE
COMPANY

[Western Union Form]

DAY LETTER

June 1, 1943

Mr. W. Lathrop, Metallurgical Engineer
Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Referring two thousand pounds of vanadium in high grade ferro vanadium for Atlas Steels our letter May twentieth. Have not yet received your order. Are holding this material in readiness for immediate shipment. Please send us your order and file corresponding request in Washington. Please wire status.

Continental Ore Company

[fol. 428]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 99 FOR IDENTIFICATION

June 29, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: High Grade Ferro Vanadium
for Atlas Steels Limited

We refer to our letter of May 17, subsequent correspondence, and our telephone conversation with Mr. Bravin on June 11.

Since it was too late to do anything with regard to the 2,000 lbs. of V contained in our high grade ferro vanadium for delivery in June, we would appreciate your ordering this quantity from us for delivery in July, including this amount in your request to be filed with the WPB, Washington.

May we hear from you.

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

M. Wolf/he

[fol. 429]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 100 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

July 5, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Attention: Mr. M. Wolf

Gentlemen: :

I have your letter of June 29th with reference to Ferrovanadium. The situation at the present time is that we have a fairly good inventory of vanadium at Welland and this together with stocks in customer's plants does not justify our opening up any additional sources for this alloy.

We are amply protected for the future and therefore, regret that we are unable to place an order with you at this time.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 430]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 101 FOR IDENTIFICATION

July 30, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Van-Ex for Atlas Steels Limited

Atlas Steels Limited have informed us that they have approached you regarding a quantity of 1,800 pounds of V contained in Van-Ex which we are desirous of shipping to them.

This quantity is the balance of the material especially prepared for Atlas Steels Limited and therefore we are forced to ship this material to this customer.

You will agree with us that this is not the time to leave any critical material idle and since Atlas is especially used to our Van-Ex, we asked them to accept it as a last shipment.

In other words, we are perfectly willing not to ship any more material, i.e. Van-Ex or high grade ferro vanadium, to them. You will, of course, realize that in making this proposal, we count on you to accede to Atlas' request, thereby cooperating with us to dispose of this balance.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/hc

[fol. 431]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 102 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

August 2, 1943.

Continental Ore Company,
500 Fifth Avenue,
New York, N.Y.

Gentlemen:

We have your letter of July 30 with reference to a quantity of 1800 pounds of vanadium contained in Van-Ex which you wish to dispose of to the Atlas Steels Limited, Welland.

The stock of contained V on hand at the present time is sufficient to take care of our customer's requirement for some time and it is not expected that we will be importing any additional quantities until present stocks are reduced.

Yours very truly,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED

/s/ C. S. Bravin
Vice-President

C.S.Bravin:ML

[fol. 432]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 103 FOR IDENTIFICATION

September 23, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: 1800 lbs. Vanadium contained in Van-Ex

We refer to our previous correspondence and would very much like to know whether you are now prepared to take over this small quantity.

We would like to dispose of this balance at the earliest possible moment and would be willing to wait until November 30 for payment.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 433]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 104 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

October 4, 1943

The Continental Ore Corporation,
500 Fifth Avenue,
New York, N.Y.

Attention: Mr. H.J. Leir

Gentlemen:

With reference to your letter of September 23rd regarding 1800 pounds of vanadium contained in Vanex which you wish to dispose to the Atlas Steels Limited.

We will be very glad to take up this matter with you when vanadium is required for Canadian requirements in the future. However, as explained to you in my letter of August 2nd, the consumption of vanadium in Canada has decreased to some extent and therefore we do not anticipate making further importations until our inventories are worked down to a reasonable basis. This may be as late as December of this year or January of next year. However, we can assure you that we will not forget this quantity of vanadium which you desire to move when we make the next purchase.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED,

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 434]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 105 FOR IDENTIFICATION

October 5, 1943

Electro Metallurgical Company of Canada, Limited
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Van-Ex

Thank you for your letter of October 4.

We understand perfectly the reasons given for keeping this matter in suspense. However, we believe that we have shown our spirit of co-operation regarding the Canadian market and it would be most helpful to us if we could clear out this small lot at an earlier date. (Incidentally, the quantity is only 1600 lbs. of V contained, not 1800 lbs. as mentioned before).

May we suggest that you allow us to ship this material now, with the provision that we invoice it as of December for payment January 31, or, if it would be convenient for your Accounting Department, we could invoice it as of January 1.

This would allow us to liquidate our stock now and avoid the accumulation of further expenses.

Thank you for your kind cooperation.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/he

[fol. 435]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 106 FOR IDENTIFICATION

October 27, 1943

Electro Metallurgical Company of Canada, Ltd.
Welland, Ontario
Canada

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Van-Ex

We have not as yet received a reply from you to our letter of October 5, and would very much appreciate your giving this matter your attention at the earliest possible moment.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/hc

[fol. 436]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 107 FOR IDENTIFICATION

ELECTRO METALLURGICAL COMPANY OF CANADA, LIMITED
WELLAND, ONTARIO

October 30, 1943

Continental Ore Company,
500 Fifth Avenue,
New York, N. Y.

Attention: Mr. H. J. Leir

Gentlemen:

With reference to recent correspondence and your letter of October 27th regarding Vanex, we would advise that vanadium is a very slow moving alloy in Canada at the present time, and as previously advised you our stocks are such that we do not anticipate purchasing further quantities at the present time. We can assure you that you will get due consideration of the quantities you want to dispose of when it becomes necessary to purchase further quantities.

Very truly yours,

ELECTRO METALLURGICAL COMPANY
OF CANADA, LIMITED

/s/ C. S. BRAVIN
Vice-President.

C.S. Bravin:JG

[fol. 437]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 108 FOR IDENTIFICATION

February 2, 1944

Electro Metallurgical Company of Canada, Limited
Welland
Ontario

Attention: Mr. C. S. Bravin, Vice-President

Gentlemen:

Re: Vanadium

We understand that although the allocation system for Ferro Vanadium in this country has been abolished, the set-up as concerns Canada, whereby you are buying vanadium for the entire Canadian Steel Industry, still continues.

We refer in this connection to our previous correspondence. We still have available material which we accumulated for export to Canada, and wonder whether you can release this material now.

May we hear from you?

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

cc: Mr. George B. Walker
Electro Metallurgical Co.
30 East 42nd Street
New York, N. Y.

[fol. 438]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 109 FOR IDENTIFICATION

June 11, 1943

Electro Metallurgical, Welland

Called Mr. Bravin, Electro Metallurgical, Welland, Canada, with respect to the 2000 lbs. of V contained in ferro vanadium for Atlas. He said that it was too late to do anything for June and when I protested that this business should not depend on his being in Welland or not, he said that they had made their plans a long time ago and it would not have fit into the picture for June anyway.

He will see what he can do for July.

Pressed as to what his attitude would be, he took refuge behind Mr. Bateman saying that he depends entirely upon his decisions. I told him that we knew that whatever Electromet proposes will be acceptable to Mr. Bateman and that there is no reason why we should be cut off from a customer which we served for a number of years.

He said that the Canadian Govt. has spent quite a bit of money for this set-up and it seems that Mr. Bateman had made his plans without considering us.

I told him that, in other words, this would mean that Electromet monopolized the Canadian market. He thereupon that he in Canada does not make a single cent out of this set-up and that furthermore they are not alone in it since Vanadium Corp. is shipped to Canada too. Thereupon I told him that this is just what I understand under the term of monopoly.

I saw Arrouet in this connection. He conceded that Bravin is giving us the run around and furthermore agrees that it was not dignified or clever to do it this way. He emphasized that Bravin had been out of town but still this does not justify his methods.

Arrouet was very monopolistic this time too and expressed his astonishment that we were successful in getting so much vanadium anyway. He also mentioned that Climax would better stay out of this business because they could enter the molybdenum field too if they wanted and make trouble for Climax. They already have quite some quantities of molybdenum from their tungsten operation in Calif. which they are partly shipping as MoS_2 and partly roasting for making ferro.

I countered that in other words his picture of the world looked like this—God told Climax to make Molybdenum, he told Electromet to make vanadium, tungsten, ferro manganese etc. and Vanadium Corp. to make ferro vanadium and that nobody would be allowed to transgress the field.

He conceded that the tendency here in this country was approximately like that but that it could not be helped. As to the European market, it appears that Ugine had a contract with Vanadium Corp. for Peruvian vanadium ashes and also some vanadic acid but that Electromet too had a contract with Ugine since Vanadium Corp. could not supply all of Ugine's needs.

Incidentally, Arrouet remarked that we had promised not to go into the Canadian market again and now we had offered ferro vanadium. We said that if Bateman had taken over our 13,000 lbs. of V contained in Van-Ex which was the condition we imposed, we would have refrained from offering ferro vanadium.

mw/sk

[fol. 439]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT NO. 121 FOR IDENTIFICATION

CONFIDENTIAL ORE COMPANYBALANCE SHEET,
DECEMBER 31, 1942ASSETS

ASSETS:	
Cash in bank and on hand,.....	\$ 22,151.90
Accounts receivable,.....	119,830.44
Loans receivable,.....	1,097.87
Merchandise inventory,.....	198.40
Furniture and fixtures,.....	\$ 693.08
Less reserve for depreciation,.....	<u>15.04</u>
Prepayments and deposits,.....	678.04
Claim against Standard Marine Insurance Co.,.....	\$ 5,733.00
Less reserve for uncollectibility,...	<u>5,733.00</u>
Investment in Western Mining Corp. pfd. stock,....	2,500.00
TOTAL ASSETS,.....	<u>\$147,145.04</u>

LIABILITIES
AND CAPITAL

LIABILITIES:	
Accounts payable,.....	\$42,094.20
Loans payable - Bank,.....	\$ 4,179.55
Loans payable - Others,...	<u>11,147.89</u>
Accrued expenses and taxes,.....	<u>3,490.89</u>
Total liabilities,.....	\$ 60,912.53
RESERVE FOR CONFIDENT ROYALTIES,.....	5,458.50
PARTNERS' CAPITAL, DECEMBER 31, 1942,.....	<u>80,774.01</u>
TOTAL LIABILITIES AND CAPITAL,.....	<u>\$147,145.04</u>

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EXHIBIT A

439

CONCRETE PAVING CORPORATIONBALANCE SHEET,DECEMBER 31, 1943A S S E T SASSETS:

Cash in bank and on hand,.....	\$ 4,002.09	
Accounts receivable,.....	112,363.15	
Loans and other receivables,.....	1,420.92	
Merchandise inventory,.....	7,274.03	
Furniture and fixtures,.....	\$ 704.68	
Less reserve for depreciation,.....	<u>90.15</u>	614.53
Prepayments and deposits,.....		720.19
Claim against Standard Marine Insurance Co.,.....	\$ 5,733.00	
Less reserve for uncollectibility,.....	<u>5,733.00</u>	<u>-</u>

TOTAL ASSETS,..... \$126,394.91L I A B I L I T I E S
A N D C A P I T A LLIABILITIES:

Accounts payable,.....	\$14,789.54	
Loans payable,.....	8,618.42	
Accrued expenses and taxes,...	<u>4,804.82</u>	
Total liabilities,.....		\$ 28,212.85
RESERVE FOR CONTINGENT ROYALTIES,.....		6,502.50
PARTNERS' CAPITAL, DECEMBER 31, 1943,.....		<u>91,679.56</u>

TOTAL LIABILITIES
AND CAPITAL,..... \$126,394.91

L140

[fol. 441]

CONFIDENTIAL ORE COMPANYSTATEMENT OF INCOME AND PROFIT AND LOSS
MAY 5, 1942, TO DECEMBER 31, 1942

SALES,.....		\$361,491.06	
COST OF SALES,.....		<u>313,383.89</u>	
GROSS PROFIT ON SALES,.....		\$ 48,107.17	
OTHER INCOME:			
Commissions,.....	\$3,134.44		
Miscellaneous,.....	<u>1,000.00</u>	<u>4,134.44</u>	
Total income,.....		\$ 52,239.61	
EXPENSES:			
Salaries,.....	\$8,269.59		
Rent and light,.....	954.37		
Commissions,.....	5,101.01		
Telephone, telegraph, and cables,.....	663.00		
General expenses,.....	1,857.84		
Legal and professional,.....	1,691.30		
Experimental costs,.....	175.23		
Traveling,.....	868.91		
Taxes (including N. Y. State U.B.T.),..	1,090.00		
Depreciation,.....	15.04		
Insurance,.....	343.75		
Stationery and printing,.....	352.43		
Warehouse and shipping supplies,.....	1,423.26		
Postage,.....	<u>645.89</u>	<u>20,451.70</u>	
Total expenses,.....		\$ 31,787.91	
OTHER DEDUCTIONS:			
Interest and bank fees,.....	\$ 501.56		
Contributions,.....	58.00		
Provision for contingent royalties,....	<u>5,458.50</u>	<u>6,018.06</u>	
NET PROFIT FOR THE PERIOD,.....		<u>\$ 25,769.85</u>	

EXHIBIT B

441

441

[fol. 442]

CONTINENTAL ORE COMPANYSTATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEER	EMMA D. LEER	LINA SCHMIDT
ORIGINAL CONTRIBUTION				
5/5/42,.....	\$15,000.00	\$ 3,000.00	\$ 9,000.00	\$ 3,000.00
ADDITIONAL CONTRIBUTION TO				
12/31/42,.....	<u>44,435.50</u>	<u>1,476.56</u>	<u>34,967.15</u>	<u>7,991.79</u>
Total,.....	\$59,435.50	\$ 4,476.56	\$43,967.15	\$10,991.79
ADD - NET INCOME FOR THE				
PERIOD MAY 5, 1942, TO				
DECEMBER 31, 1942,.....	<u>25,769.85</u>	<u>7,902.77</u>	<u>12,710.11</u>	<u>5,156.97</u>
Total,.....	\$85,205.35	\$12,382.33	\$56,677.26	\$16,148.76
LESS - WITHDRAWALS DURING				
THE PERIOD MAY 5, 1942,				
TO DECEMBER 31, 1942,....	<u>4,431.24</u>	<u>1,435.49</u>	<u>222.82</u>	
CAPITAL, DECEMBER 31, 1942,	<u>\$80,774.01</u>	<u>\$ 8,946.84</u>	<u>\$55,681.41</u>	<u>\$16,145.76</u>

442

EXHIBIT C

442

[fol. 443]

CONTINENTAL OIL COMPANYSTATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1943, TO DECEMBER 31, 1943

SALES,.....		\$ 718,751.27
COST OF SALES:		
Inventory, 1/1/43,	\$ 148.44	
Purchases,.....	812,071.50	
Freight, Sampling, and analysis,.....	<u>72,888.93</u>	
Total,.....	\$885,108.87	
Less inventory, 12/31/43,....	<u>72,888.93</u>	\$ 812,219.94
GROSS PROFIT ON SALES,.....		\$ 206,531.33
OTHER INCOME - COMMISSIONS, ETC.,.....		<u>24,474.28</u>
TOTAL INCOME,.....		\$ 231,005.61
EXPENSES:		
Salaries,.....	\$ 12,400.00	
Rent and light,.....	1,200.00	
Commissions,.....	1,200.00	
Telephone, telegraph, and cables,.....	1,200.00	
General expenses,.....	1,200.00	
Legal and professional,.....	1,200.00	
Traveling and entertainment,....	1,200.00	
Depreciation,.....	75.00	
Insurance,.....	1,104.00	
Stationery and printing,....	108.88	
Postage,.....	840.00	
Taxes (including N.Y. State U. B. T.),.....	1,718.75	
Advertising and selling,....	<u>1,200.00</u>	<u>11,000.00</u>
REMAINDER,.....		\$ 220,005.61
OTHER DEDUCTIONS:		
Interest and bank fees,.....	\$ 1,100.00	
Contributions,.....	225.00	
Provision for contingent royalties,.....	1,400.00	
Bad debts written off,	4,480.44	
Loss re worthless security, ..	<u>2,200.00</u>	<u>11,405.44</u>
NET PROFIT FOR THE YEAR,.....		\$ 208,599.17

4-1-3

EXHIBIT B

CONTINENTAL OIL COMPANYSTATEMENT OF CAPITAL ACCOUNTS

	<u>TOTAL</u>	<u>HENRY J. JEIR</u>	<u>ERNA D. JEIR</u>	<u>LINA BOULON</u>
CAPITAL, JANUARY 1, 1943,...	\$ 80,774.01	\$ 8,446.84	\$55,681.41	\$16,145.76
ADDITIONAL CONTRIBUTIONS				
TO DECEMBER 31, 1943,....	<u>15,515.46</u>	<u>5,515.46</u>	<u>-</u>	<u>10,000.00</u>
Total,.....	\$ 96,289.47	\$14,462.30	\$55,681.41	\$26,145.76
AND NET INCOME FOR THE YEAR				
ENDED DECEMBER 31, 1943,.	<u>53,148.03</u>	<u>17,256.01</u>	<u>17,256.01</u>	<u>8,628.01</u>
Total,.....	\$139,429.50	\$31,718.31	\$72,937.42	\$34,773.77
LESS WITHDRAWALS DURING THE				
YEAR ENDED DECEMBER 31,				
1943,.....	<u>42,748.34</u>	<u>10,561.62</u>	<u>22,007.25</u>	<u>8,181.87</u>
CAPITAL, DECEMBER 31, 1943,	<u>\$ 96,679.56</u>	<u>\$21,156.69</u>	<u>\$50,930.17</u>	<u>\$26,592.70</u>

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EXHIBIT C

444

[fol. 445]

EX 121

S. J. D. 1931

STATEMENT OF ASSETSASSETS - December 31, 1939

Cash in bank and on hand,.....	24,731.74
Accounts receivable,.....	3,561.29
Merchandise inventory,.....	11,251.62
Security deposits,.....	143.33
Furniture and fixtures,.....	365.05
Less reserve for depreciation,.....	<u>18.25</u>
Organization expenses,.....	<u>200.00</u>
TOTAL,.....	<u>\$40,292.67</u>

LIABILITIES AND CAPITALLIABILITIES:

Accounts payable,.....	41,450.00
Notes payable,.....	2,136.55
Accrued expenses,.....	<u>31.3</u>
Total,.....	<u>\$43,617.87</u>

CAPITAL:

Capital stock - Authorized, issued, and
outstanding - 400 shares per value
100.00 each,..... 40,000.00

Deficit - December 31, 1939,..... (3,346.19)

Total,.....	<u>36,653.81</u>
-------------	------------------

TOTAL,.....	<u>\$40,292.67</u>
-------------	--------------------

L-1

[fol. 446]

CONTINENTAL ORE CORPORATION

STATEMENT OF INCOME AND PROFIT OR LOSS
FOR THE PERIOD JUNE 13, 1939 TO DECEMBER 31, 1939

Sales,.....	\$75,225.71
Cost of sales,.....	<u>60,644.65</u>
Gross profit on sales,.....	\$ 4,581.06
Miscellaneous income,.....	<u>63.40</u>
Gross Income,.....	\$ 4,644.46

EXPENSES:

Salaries - Officers,.....	\$2,250.00
- Other,.....	707.33
Rent and light,.....	658.55
Telephone, telegrams and cablegrams,.....	495.10
Postage,.....	309.86
Travel,.....	963.71
Legal and professional,.....	250.47
General expenses,.....	532.93
Experimental costs,.....	1,653.15
Depreciation,.....	18.25
Taxes,.....	<u>131.30</u>

Total Expenses,..... 7,970.65

Loss for the period,..... (\$ 3,326.19)

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EXHIBIT B

446

[fol. 447]

CONTINENTAL ORE CORPORATIONBALANCE SHEET,
DECEMBER 31, 1940ASSETS

CASH IN BANK AND ON HAND,.....	\$28,251.20
ACCOUNTS RECEIVABLE,.....	11,129.00
LOANS RECEIVABLE,.....	1,523.46
MERCHANDISE INVENTORY,.....	3,367.01
SECURITY DEPOSITS,.....	668.33
FURNITURE AND FIXTURES,.....	\$ 566.43
Less reserve for depreciation, ..	<u>61.90</u>
	504.53
CLAIM AGAINST SOCIETE ANONYME DES MINERAIS,.....	\$5,733.00
Less reserve for noncollection, ..	<u>5,733.00</u>
	-
ORGANIZATION EXPENSES,.....	<u>200.00</u>
TOTAL ASSETS,.....	<u>\$45,643.53</u>

LIABILITIES
AND CAPITAL

LIABILITIES:

Accounts payable,.....	\$3,539.55
Loans payable,.....	6,478.37
Accounts receivable - Credit balances,.....	74.70
Accrued expenses and taxes,....	<u>93.23</u>
Total liabilities,.....	\$10,155.85

CAPITAL:

Capital stock - Authorized, issued, and outstanding - 400 shares, par value \$100.00 each,.....	\$40,000.00
Deficit - 12/31/40,.....	(<u>4,512.32</u>)
Total capital,.....	<u>35,487.68</u>

TOTAL LIABILITIES
AND CAPITAL,..... \$45,643.53EXHIBIT A

447

447

[fol. 448]

CONTINENTAL ORE CORPORATIONSTATEMENT OF INCOME AND PROFIT AND LOSS
FOR THE YEAR ENDED DECEMBER 31, 1940

SALES,.....	\$162,771.62
COST OF SALES,.....	<u>146,617.06</u>
GROSS PROFIT ON SALES,.....	\$ 16,154.56
MISCELLANEOUS INCOME - NET,.....	<u>664.87</u>
GROSS INCOME,.....	\$ 16,819.43

EXPENSES:

Salaries:

Officers,.....	\$4,437.50
Others,.....	2,675.46
Rent and light,.....	1,431.98
Telephone, telegrams, and cables,.....	1,565.01
Postage,.....	614.11
Travel,.....	2,569.11
Legal and professional,.....	710.00
General expenses,.....	2,725.56
Experimental costs,.....	752.24
Depreciation,.....	43.65
Taxes,.....	397.81
Bad debts,.....	<u>81.11</u>

Total expenses,..... 18,003.56

NET LOSS FOR THE YEAR,..... (\$ 1,186.13)

DEFICIT - 1/1/40,..... 1,326.12

DEFICIT - 12/31/40,..... (\$ 4,512.32)

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448
✓EXHIBIT B

[fol. 449]

EX 121 FOR

R E P O R T O F
CONTINENTAL ORE CORPORATION

DECEMBER 31, 1941

(Excerpts)

APPEL AND BRACH
19 NECTON STREET
NEW YORK

[fol. 450]

APPEL AND BRACH
PUBLIC ACCOUNTANTS AND TAX CONSULTANTS
15 NEXTOR STREET, NEW YORK

January 16, 1942.

Continental Ore Corporation,
500 Fifth Avenue,
New York, N. Y.

Gentlemen:

We have examined the books and records of Continental Ore Corporation for the year ended December 31, 1941, and as a result thereof submit herewith the following:

EXHIBIT

- | | |
|----------|--|
| <u>A</u> | - Balance Sheet - December 31, 1941 |
| <u>B</u> | - Statement of Income and Profit and Loss for the Year Ended December 31, 1941 |

SCHEDULE

- | | |
|----------|---|
| <u>1</u> | - Cash on Hand and in Banks - December 31, 1941 |
| <u>2</u> | - Loans Receivable - December 31, 1941 |
| <u>3</u> | - Loans Payable - December 31, 1941 |

Respectfully submitted, *

Appel & Brach

[fol. 451]

EXHIBIT ACONTINENTAL ORE CORPORATIONBALANCE SHEETDECEMBER 31, 1941ASSETS

Cash on hand and in banks (Schedule 1)		\$13,642.22
Accounts receivable		37,912.24
Commissions receivable		321.02
Inventory - as furnished by management		13,061.50
Loans receivable (Schedule 2)		3,388.37
Security deposits		618.33
Furniture and fixtures	\$566.43	
Less: Reserve for depreciation	112.69	453.74
Claim against Societe Anonyme des Minervais	\$5,733.00	
Less: Reserve for non-collection	5,733.00	-0-
Organization expenses		200.00
Prepaid expenses		236.70
<u>TOTAL ASSETS</u>		<u>\$69,834.12</u>

LIABILITIES AND CAPITALLiabilities

Accounts payable	\$ 8,777.19
Accounts receivable - credit balances	3,149.95
Loans payable (Schedule 3)	18,380.34
Accrued taxes and expenses	61.53

Total Liabilities

\$30,369.01

Capital

Capital stock - authorized, issued, and outstanding - 400 shares par value \$100.00 each	\$40,000.00
--	-------------

Deficit

Balance - January 1, 1941	\$4,512.32
Add: Life insurance premium	771.15
	\$5,283.47

Less: Net profit for the year ended December 31, 1941 (Exhibit B)

4,748.58Balance - December 31, 1941534.89Net Capital39,465.11TOTAL LIABILITIES AND CAPITAL\$69,834.12

451

[fol. 452]

EXHIBIT B

CONTINENTAL ONE CORPORATION
STATEMENT OF INCOME AND PROFIT AND LOSS
FOR THE YEAR ENDED DECEMBER 31, 1941

<u>Sales</u>		\$391,507.29
<u>Cost of Goods Sold</u>		
Inventory - January 1, 1941	\$ 1,164.39	
Purchases	<u>383,164.48</u>	
Inventory - December 31, 1941	\$384,328.87	
	<u>13,061.50</u>	
<u>Cost of Goods Sold</u>		<u>371,267.37</u>
<u>Gross Profit</u>		\$ 20,239.92
<u>Add: Commissions</u>		<u>7,059.54</u>
<u>Gross Income</u>		\$ 27,299.46
<u>Expenses</u>		
Salaries - officers	\$4,975.00	
office	4,471.55	
Commissions	638.94	
Rent and light	1,970.14	
Telephone	1,356.19	
Cables and telegrams	655.06	
Experimental costs	167.03	
Professional fees	725.85	
Postage	715.63	
Taxes	406.98	
Travelling expenses	1,141.39	
General expenses	4,174.82	
Bad debt	10.60	
Depreciation	50.79	
Interest and discount	935.60	
Insurance	<u>155.31</u>	
<u>Total Expenses</u>		<u>22,550.88</u>
<u>NET PROFIT</u>		\$ <u>4,748.58</u>

[fol. 453]

EX 121

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

FOR THE YEAR

JANUARY 1, 1944

to

DECEMBER 31, 1944

(210 p.to)

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

19 RECTOR STREET

NEW YORK 6, N. Y.

DAVID B. JACOBS & COMPANY
 CERTIFIED PUBLIC ACCOUNTANTS
 19 RECTOR STREET
 NEW YORK 6, N. Y.

DAVID B. JACOBS, C. P. A.
 S. WALTER SAUFMAN, C. P. A.
 LEWIS APPEL
 EDWIN W. APPEL

TELEPHONE
 D-1081 4-1970

January 22, 1945

Continental Ore Company
 500 Fifth Avenue
 New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1944, and hand you herewith our report thereon:

SUBJECT

"A" - BALANCE SHEET, DECEMBER 31, 1944

Schedule

- #1 - Statement of Accounts Receivable
- #2 - Statement of Accounts Payable

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
 JANUARY 1, 1944 to DECEMBER 31, 1944

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs
 Certified Public Accountants.

DAVID B. JACOBS & COMPANY

CONTINENTAL ONE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEETDECEMBER 31, 1944ASSETSCURRENT ASSETS:

Cash in New York Trust Company.....	\$ 58,465.80	
Cash on Hand.....	108.35	
Accounts Receivable.....	109,579.31	
Accounts Payable - Debit Balances..	3,031.67	
Merchandise Inventory-as Submitted.	2,608.75	
Sundry Receivable.....	100.16	
Commissions Receivable.....	<u>5,776.29</u>	
TOTAL CURRENT ASSETS		179,670.33

FIXED ASSETS:

Furniture and Fixtures.....	771.60	
Less: Reserve for Depreciation..	<u>168.64</u>	
TOTAL FIXED ASSETS		602.96

OTHER ASSETS:

Unexpired Insurance.....	343.11	
Stationery Inventory.....	250.00	
Claim - Standard Insurance Co. of		
L. Verpeal.....	5,713.00	
Less: Reserve for Uncollecti-		
bility.....	<u>5,713.00</u>	
TOTAL OTHER ASSETS		323.11
TOTAL ASSETS		\$ 180,644.00

DAVID B. JACOBS & COMPANY

CONFIDENTIAL OIL COMPANYBALANCE SHEET "A"

- 0 -

BALANCE SHEET

DECEMBER 31, 1944

LIABILITIES AND CAPITALCURRENT LIABILITIES:

Accounts Payable.....	\$ 18,841.76
Accounts Receivable-Credit Balance.	3,236.50
Accrued Expenses and Taxes.....	5,118.94
New York State Unincorporated	
Business Tax.....	<u>1,897.82</u>

TOTAL CURRENT LIABILITIES

29,094.97

OTHER LIABILITIES:

Loans Payable:	
Louis J. Lipson.....	3,080.51
Mrs. Martin Wolf.....	2,000.00
State Prop.....	5,164.47
Marion Magblatt.....	50.65
Arthur Lischer.....	<u>2,891.11</u>

TOTAL OTHER LIABILITIES

13,036.80

RESERVE FOR DEVIATION.....

6,887.50

PARTNERS' CAPITAL, December 31, 1944.....

131,915.23

TOTAL LIABILITIES AND CAPITAL

\$ 180,966.40

DAVID B. JACOBS & COMPANY

CONFIDENTIAL AND PRIVATE

EXHIBIT Y

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1964 to DECEMBER 31, 1964

SALES	0	1,236,010.13
COST OF GOODS SOLD:		
Inventory, January 1, 1964.....	7,774.03	
Purchases.....	1,107,922.07	
Freight and Customs.....	<u>14,061.71</u>	
	1,129,757.81	
Less: Inventory, December 31, 1964.....	<u>2,608.75</u>	
		<u>1,127,149.06</u>
GROSS PROFIT ON SALES		109,355.07
EXPENSES:		
Advertising and Selling.....	5,572.66	
Commissions Paid.....	3,708.71	
Experimental Expense.....	398.94	
General Research.....	1,581.40	
Reprints.....	385.00	
Sampling and Analysis.....	1,098.97	
Traveling and Entertainment.....	6,905.67	
Warehouse and Shipping Supplies.....	1,775.95	
Interest and Bank Fees.....	926.66	
Contributions.....	130.00	
General Expense.....	868.74	
Insurance.....	427.39	
Legal and Professional.....	3,793.23	
Postage.....	1,756.15	
Heat and Light.....	3,341.75	
Salaries.....	19,983.25	
Stationery and Printing.....	1,259.37	
Telephones, Telegraph and Cables.....	4,069.68	
Taxes - Payroll.....	562.78	
- N. Y. State Unincorporated Business.....	1,807.39	
- Other.....	<u>401.78</u>	
		2,771.65
Depreciation of Furniture and Fixtures.....	<u>75.02</u>	
TOTAL EXPENSES		<u>61,210.14</u>
OPERATING PROFIT		48,144.93
OTHER INCOME:		
Commissions Earned.....	17,010.15	
Account on Purchases.....	2,799.29	
Miscellaneous Income.....	<u>51.00</u>	
TOTAL OTHER INCOME		<u>19,860.44</u>
NET PROFIT FOR YEAR ENDED DECEMBER 31, 1964		67,965.15

- 6 -

[fol. 459]

DAVID B. JACOBS & COMPANY

CONTINENTAL OIL COMPANYEXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	<u>TOTAL</u>	<u>HARRY LEON</u>	<u>ERNA D. LEON</u>	<u>LINA SCHLOSS</u>
<u>BALANCE</u> , January 1, 1944.....	9,879.56	21,156.69	43,930.17	26,592.70
<u>AND:</u>				
Net Profit for the Year Ended December 31, 1944.....	<u>67,968.15</u>	<u>27,187.26</u>	<u>27,187.26</u>	<u>13,593.63</u>
	159,647.71	48,343.95	71,117.43	40,186.33
<u>Deduct:</u>				
Withdrawals during the Year Ended December 31, 1944.....	<u>27,712.48</u>	<u>8,982.81</u>	<u>11,204.77</u>	<u>7,494.88</u>
CAPITAL, DECEMBER 31, 1944	0 131,935.23	39,361.12	59,902.66	32,691.45

CONTINENTAL OIL COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

EX 121 FOR IDENT

REPORT FOR YEAR

JANUARY 1, 1945

to

DECEMBER 31, 1945

(12 months)

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

19 NECTOR STREET

NEW YORK 6, N. Y.

[fol. 461]

DAVID B. JACOBS & COMPANY
 CERTIFIED PUBLIC ACCOUNTANTS
 119 RECTOR STREET
 NEW YORK 6, N. Y.

DAVID B. JACOBS, C. P. A.
 E. WALTER RAUTMAN, C. P. A.
 LEWIS APPEL
 EDWIN W. APPEL

TELEPHONE
 OREGON 4-1970

March 13, 1946

Continental Ore Company
 300 Fifth Avenue
 New York, N. Y.

Dear Sirs:

We have made an examination of your books and records
 for the year ended December 31, 1945, and hand you herewith our
 report thereon:

SUMMARY
 "A" - BALANCE SHEET, DECEMBER 31, 1945

Schedules

- #1 - Statement of Accounts Receivable
- #2 - Statement of Accounts Payable
- #3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
 JANUARY 1, 1945 to DECEMBER 31, 1945

- #1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs
 Certified Public Accountants.

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BALANCE SHEET
DECEMBER 31, 1945

-----○-----

2-1-46
D-1-46

DAVID B. JACOBS & COMPANY

STATEMENT OF ASSETSASSETS

- 0 -

BALANCE SHEETDECEMBER 31, 1941ASSETSCURRENT ASSETS:Cash in Banks:

New York Trust Company.....

48,902.52

Manufacturers Trust Company....

979.80

Cash on Hand.....

117.12

Accounts Receivable.....

107,884.96

Accounts Payable - Subd Balance..

604.10

Advances for Future Duty.....

1,539.60

Investments in Securities - Cash -

Market Value \$14,400.00.....

11,942.72

Merchandise Inventory as submitted:

Stock.....

26,872.80

In Transit.....

11,271.94

43,944.76

Advances to International Ore Co..

1,380.00

Sundry Receivables.....

187.00

TOTAL CURRENT ASSETS

215,443.36

FIXED ASSETS:

Furniture and Fixtures.....

1,042.22

Less: Reserve for Depreciation..

166.75

TOTAL FIXED ASSETS

875.46

OTHER ASSETS:

Unearned Insurance.....

647.86

Claims - Standard Insurance Co. of

Idaho.....

5,713.00

Less: Reserve for Uncollectibility

1,711.00

- 0 -

Sagami - Pan American Airways....

120.00

TOTAL OTHER ASSETS

5,729.86

TOTAL ASSETS

\$ 227,298.68

DAVID B. JACOBS & COMPANY

CONTINENTAL OIL COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1945LIABILITIES AND CAPITALCURRENT LIABILITIES:

Accounts Payable.....	0	13,446.68
Accounts Receivable - Credit		
Balances.....		3,188.58
Accrued Expenses and Taxes.....		2,413.13
Bonuses Accrued - 1945.....		6,007.25
New York State Unincorporated		
Business Tax.....		2,577.94
Advances Against Merchandise in		
Transit - New York Trust Co. ..		<u>8,734.25</u>

TOTAL CURRENT LIABILITIES	36,367.83
---------------------------	-----------

OTHER LIABILITIES:

Loans Payable:		
Maks Frey.....	5,425.79	
Maurice Kleeblatt.....	53.21	
Arthur Lieber.....	2,945.02	
Armin Doctor.....	362.46	
George Florsheim.....	<u>202.34</u>	
TOTAL OTHER LIABILITIES	8,988.82	

<u>RESERVE FOR ROYALTIES</u>	6,887.90
------------------------------------	----------

<u>PARTNERS' CAPITAL, DECEMBER 31, 1945...</u>	<u>165,010.05</u>
--	-------------------

TOTAL LIABILITIES AND CAPITAL	0 217,254.20
-------------------------------	--------------

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ORE COMPANYSCHEDULE #3

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1945

<u>NO. OF SHARES</u>	<u>SECURITY</u>	<u>COST</u>	<u>MARKET VALUE</u>
50	American Car and Foundry 7% Pfd. ...	5,514.25	6,100.00
100	Consolidated Vultee Aircraft.....	2,305.72	3,300.00
100	Grumman Aircraft Engineering Corp..	4,122.75	5,200.00
		<hr/>	<hr/>
	TOTALS	\$ 11,942.72	14,600.00

DAVID H. JACOBS & COMPANY

CONTINENTAL ORE COMPANY
EXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1945 to DECEMBER 31, 1945

<u>SALES</u>		1,167,984.38
<u>COST OF GOODS SOLD:</u>		
Inventory, January 1, 1945.....	2,608.75	
Purchases.....	1,034,846.80	
Freight and Customs.....	<u>50,368.05</u>	
	1,087,823.60	
Less: Inventory, December 31, 1945.	<u>43,944.76</u>	
		<u>1,043,878.84</u>
GROSS PROFIT ON SALES		124,105.54
<u>COMMISSIONS EARNED</u> (Sales \$1,068,985.50)		<u>32,177.62</u>
		156,283.16
<u>EXPENSES</u>		<u>78,515.58</u>
OPERATING PROFIT		77,767.58
<u>OTHER INCOME:</u>		
Discount on Purchases.....	924.05	
Miscellaneous Income.....	57.10	
Dividends Received.....	512.90	
Gain on Sales of Securities.....	<u>2,116.94</u>	
		<u>3,610.99</u>
		81,378.17
<u>OTHER DEDUCTIONS:</u>		
Bank Fees.....	275.90	
Interest - Net.....	685.93	
Taxes - Payroll.....	477.13	
- M. T. State Unincorporated Business - Paid and Accrued.....	2,609.23	
- Other.....	<u>190.79</u>	
	3,477.15	
Depreciation of Furniture & Fixtures	72.32	
Loss on Sale of Fixtures.....	<u>27.80</u>	
		<u>4,538.70</u>
NET PROFIT FOR THE YEAR		\$ 76,839.47

[fol. 467]

DAVID B. JACOBS & COMPANY

CONTINENTAL ORE COMPANYSCHEDULE A

- 0 -

STATEMENT OF EXPENSES

JANUARY 1, 1945 to DECEMBER 31, 1945

Advertising and Selling.....	8	7,342.17
Commissions Paid.....		7,379.30
Experimental Expense.....		1,700.00
Mineral Research.....		3,649.43
Sampling and Analysis.....		4,612.44
Traveling and Entertaining.....		11,516.88
Warehouse and Shipping Supplies.....		192.97
General Expenses.....		1,175.68
Insurance.....		1,527.13
Legal and Professional.....		2,672.75
Postage.....		2,945.23
Rent and Light.....		3,535.46
Salaries and Bonuses.....		23,293.50
Stationery and Printing.....		1,336.10
Telephone, Telegrams and Cables.....		6,130.54

TOTAL

\$ 78,515.58

- 8 -

[fol. 468]

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ORE COMPANYEXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	<u>TOTAL</u>	<u>HENRY J. LEHR</u>	<u>EDNA D. LEHR</u>	<u>LINA SCHLOSS</u>
<u>BALANCE</u> , January 1, 1945.....	131,935.23	39,361.12	59,882.66	32,691.45
		<u>28,909.10</u>		
<u>ADD:</u>				
Net Profit for the Year Ended				
December 31, 1945.....	<u>76,839.47</u>	<u>30,735.79</u>	<u>30,735.79</u>	<u>15,367.89</u>
	208,774.70	70,096.91	90,618.45	48,059.34
<u>DEDUCT:</u>				
Withdrawals during the Year				
Ended December 31, 1945.....	<u>41,764.65</u>	<u>15,086.06</u>	<u>19,020.13</u>	<u>8,758.40</u>
 CAPITAL, DECEMBER 31, 1945	 \$ 165,010.05	 54,110.85	 71,598.26	 39,300.94
		<u>28,909.10</u>		

[fol. 469]

EX 121 FOR A.L.I.

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1946

to

DECEMBER 31, 1946

(ass-gts)

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
19 RECTOR STREET
NEW YORK 6, N. Y.

[fol. 470]

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

19 WESTON STREET

NEW YORK 6, N.Y.

DAVID B. JACOBS, C.P.A.
WALTER KAUFMAN, C.P.A.LEWIS ARON
EDWIN W. ARONREGISTERED
PUBLIC ACCOUNTANTS

February 12, 1947

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1946, and hand you herewith our report thereon:

EXHIBIT
"A"

- BALANCE SHEET, DECEMBER 31, 1946

Schedule

- #1 - Statement of Accounts Receivable
- #2 - Statement of Accounts Payable
- #3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1946 to DECEMBER 31, 1946

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs
Certified Public Accountants.

[fol. 471]

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BALANCE SHEET
DECEMBER 31, 1946

-----o-----

[fol. 472]

DAVID B. JACOBS & COMPANY

INTERIM BAL SHEET**ASSETS**

- 0 -

BALANCE SHEET**DECEMBER 31, 1946****ASSETS****CURRENT ASSETS:**

Cash in Bank - New York Trust Company..	99,935.14
Cash on Hand.....	293.30
Accounts Receivable.....	307,053.42
Accounts Payable - Credit Balances.....	2,190.70
Advances - On Merchandise Purchases....	66,084.51
- On Future Duty and Freight.....	2,197.52
Investment in Securities - Govt.....	11,742.22
(Market Value - \$9,712.50)*	
Merchandise Inventory - as submitted..	7,779.49
Sundry Receivables.....	3,229.65
Due from Employees.....	4,000.00

TOTAL CURRENT ASSETS

584,445.95

FIXED ASSETS:

Furniture and Pictures.....	2,521.93
Less: Reserve for Depreciation.....	302.12

TOTAL FIXED ASSETS

2,219.81

OTHER ASSETS:

Unexpired Insurance.....	547.11
Deposit - Pan American Airways.....	230.00

TOTAL OTHER ASSETS

777.11

TOTAL ASSETS

\$ 587,442.87

*Market Value as at 2/10/47

[fol. 473]

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ONE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1946LIABILITIES AND CAPITALCURRENT LIABILITIES:

Accounts Payable.....	\$	202,158.30	
Accounts Receivable - Credit			
Balance.....		197,452.05	
Accrued Expenses and Taxes.....		1,095.16	
Business Payable - 1946.....		8,250.00	
New York State Unincorporated			
Business Tax Payable.....		<u>1,950.01</u>	
TOTAL CURRENT LIABILITIES			370,905.52

OTHER LIABILITIES:

Loans Payable:			
George Florentin.....		1,773.96	
Elias Frey.....		5,642.82	
Marion Elzeblatt.....		<u>55.36</u>	
TOTAL OTHER LIABILITIES			7,472.10

RESERVE FOR ROYALTIES..... **6,887.50**PARTNER'S CAPITAL, December 31, 1946.... **202,197.75****TOTAL LIABILITIES AND CAPITAL** **\$ 587,462.87**

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ONE COMPANYSCHEDULE 2

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1946

<u>NO. OF SHARES</u>	<u>SECURITY</u>	<u>COST</u>	<u>MARKET VALUE 2/10/47</u>
50	American Car & Foundry 7% Pfd.\$	5,514.25	5,625.00
100	Grumman Aircraft Engineering.....	4,122.75	2,575.00
100	General American Investors.....	<u>2,105.22</u>	<u>1,512.50</u>
	TOTALS	\$ 11,742.22	9,712.50

[fol. 475]

DAVID H. JACOBS & COMPANY

CONTINENTAL OIL COMPANY

EXHIBIT "C"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1946 to DECEMBER 31, 1946

SALES	\$	2,785,270.56
COST OF GOODS SOLD:		
Inventory, January 1, 1946.....	43,944.76	
Purchases.....	2,253,460.16	
Freight, Customs and Insurance....	267,670.70	
	2,565,075.62	
Less: Inventory, December 31, 1946	7,779.49	
		2,557,296.13
GROSS PROFIT ON SALES		227,974.43
COMMISSIONS EARNED (Sales \$230,137.60).		11,914.44
		239,888.87
EXPENSES		150,041.04
OPERATING PROFIT		89,847.83
OTHER INCOME:		
Discount on Purchases.....	569.08	
Dividends Received.....	1,148.00	
Gain on Sale of Furniture and Fixtures.....	24.18	
		1,741.26
		91,589.09
OTHER DEDUCTIONS:		
Bank Fees.....	2,015.65	
Interest Expense.....	923.45	
Payroll Taxes.....	1,041.75	
Other Taxes (Including New York State Unincorporated Business)...	3,024.37	
Depreciation - Furniture and Fixtures.....	150.56	
Loss on Sale of Securities.....	6,506.23	
		13,662.01
NET PROFIT FOR THE PERIOD	\$	77,927.08

- 7 -

DAVID B. JACOBS & COMPANY

CONFIDENTIAL ORE COMPANYSCHEDULE A

- 0 -

STATEMENT OF EXPENSES

JANUARY 1, 1946 to DECEMBER 31, 1946

Advertising and Selling.....	\$ 9,889.06
Commissions Paid.....	28,712.22
Mineral Research.....	12,916.57
Sampling and Analysis.....	5,969.44
Traveling and Entertaining.....	20,980.94
General Expense.....	1,399.87
Insurance.....	484.00
Legal and Professional.....	5,275.31
Postage.....	5,314.28
Heat and Light.....	5,762.32
Salaries and Bonuses.....	43,555.69
Stationery and Printing.....	1,551.28
Telephone, Telegrams and Cables.....	<u>8,270.06</u>

TOTAL EXPENSES

\$ 150,041.04

[fol. 477]

DAVID B. JACOBS & COMPANY

CONTINENTAL ONE COMPANYEXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	TOTAL	HENRY J. LEIS	EMMA D. LEIS	LINA SCHUMER
<u>BALANCE</u> , January 1, 1946.....\$	165,010.05	54,110.85	71,598.26	39,300.94
<u>Add:</u>				
Adjustment re: Prior Years:				
New York State Unincorporated Business Tax.	<u>644.48</u>	<u>257.79</u>	<u>257.79</u>	<u>128.90</u>
<u>ADJUSTED BALANCE</u> , JANUARY 1, 1946	165,654.53	54,368.64	71,856.05	39,429.84
<u>Add:</u>				
Net Profit for the Year Ended December 31, 1946	<u>77,927.08</u>	<u>31,170.83</u>	<u>31,170.83</u>	<u>15,585.42</u>
	243,581.61	85,539.47	103,026.88	55,015.26
<u>Deduct:</u>				
Withdrawals during the Year Ended December 31, 1946.....	<u>41,383.86</u>	<u>7,563.80</u>	<u>24,863.44</u>	<u>8,926.62</u>
<u>CAPITAL</u> , DECEMBER 31, 1946	\$ 202,197.75	77,975.67	78,163.44	46,058.64

ps EX. 121

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1947

to

DECEMBER 31, 1947

(exempt)

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

19 RECTOR STREET

NEW YORK 6, N. Y.

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

19 RECTOR STREET

NEW YORK 6, N. Y.

DAVID B. JACOBS C.P.A.
S. WALTER RAUPMAN C.P.A.LEWIS APPEL
EDWIN M. ARDELTELEPHONE
DI 0874-7070

February 22, 1948

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Dear Sirs:

We have made an examination of your books and records for the year ended December 31, 1947, and hand you herewith our report thereon:

EXHIBIT

"A" - BALANCE SHEET, DECEMBER 31, 1947

Schedule

- #1 - Statement of Accounts Receivable
- #2 - Statement of Accounts Payable
- #3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1947 to DECEMBER 31, 1947

- #1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs
Certified Public Accountants.

BALANCE SHEET
DECEMBER 31, 1947

DAVID E. JACOBS & COMPANY

[fol. 481]

Page 2

CONFIDENTIAL ONE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1947ASSETSCURRENT ASSETS:

Cash in New York Trust Company:		
Regular Account.....\$	35,300.21	
Deposit re: Anticipated Letters		
of Credit.....	94,380.00*	
Cash on Hand.....	166.61	
Accounts Receivable.....	218,168.88	
Accounts Payable - Debit Balances.....	1,244.94	
Advances:		
On Merchandise Purchases.....	199,076.37	
On Future Duty and Freight.....	18,983.95	
Investment in Securities - Cost.....	11,742.22	
(Market Value \$8,850.00)**		
Merchandise Inventory.....	68,217.28	
Sundry Receivables.....	2,087.34	
Due from Employees.....	<u>3,000.00</u>	
TOTAL CURRENT ASSETS		612,967.80

FIXED ASSETS:

Furniture and Fixtures.....	3,236.51	
Less: Reserve for Depreciation.....	<u>533.90</u>	
TOTAL FIXED ASSETS		2,702.61

OTHER ASSETS:

Unexpired Insurance.....	283.55	
Deposit - Pan American Airways.....	250.00	
- Others.....	<u>50.00</u>	
TOTAL OTHER ASSETS		<u>583.55</u>

TOTAL ASSETS \$ 615,653.96*Deposit against open letters of credit for
\$463,176.00 with the New York Trust Company.

**Market value as at February 13, 1948.

CONTINENTAL ORE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1947LIABILITIES AND CAPITALCURRENT LIABILITIES:

Accounts Payable.....\$	100,834.25
Accounts Receivable - Credit Balances.....	17,411.90
Accrued Expenses and Taxes.....	3,930.92
Bonuses Payable - 1947.....	20,950.00
New York State Unincorporated Business Tax Payable.....	4,035.64
Due to Coal Export Corporation.....	<u>212,200.00</u>

TOTAL CURRENT LIABILITIES 359,362.71

OTHER LIABILITIES:

Loans Payable..... 2,135.34

RESERVE FOR ROYALTIES..... 6,887.50

PARTNERS' CAPITAL, DECEMBER 31, 1947.... 247,268.41

TOTAL LIABILITIES AND CAPITAL \$ 615,653.96

CONTINENTAL ORE COMPANYSCHEDULE #2 continued

FORWARDED

DR.

CR.

Advances on Merchandise Purchased:

Bethlehem Steel Export Corp.	\$ 144,989.32
J. C. McDonald.....	12,437.05
Tennessee Valley Authority.....	<u>1,630.00</u>
	<u>159,076.37</u>

Advances on Duty and Freight:

Bank of Douglas.....	1,320.81
E. Boehringer.....	388.86
H. A. Gogarty, Inc.	13,614.57
G. W. Oshea.....	<u>3,679.71</u>
	<u>18,983.95</u>

TOTALS

\$ 179,305.26

100,834.25

CONTINENTAL OIL COMPANYSCHEDULE 2

- 0 -

STATEMENT OF SECURITIES OWNED
DECEMBER 31, 1947

<u>NO. OF</u> <u>SHARES</u>	<u>SECURITY</u>	<u>COST</u>	<u>MARKET</u> <u>VALUE</u> <u>DEC. 31/47</u>
50	American Car & Foundry 7 1/2 Pfd.@	3,514.25	4,650.00
100	Cummins Aircraft Engineering.....	4,122.75	3,100.00
100	General American Investors.....	<u>2,104.22</u>	<u>1,100.00</u>
	TOTALS	@ 11,742.22	8,850.00

[fol. 485]

Page 8

CONTINENTAL ONE COMPANYEXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1947 to DECEMBER 31, 1947

<u>SALES</u>	\$	4,741,603.39	
<u>COST OF GOODS SOLD:</u>			
Inventory, January 1, 1947.....		7,779.49	
Purchases.....		4,172,979.78	
Freight, Customs and Insurance....		<u>297,850.80</u>	
		4,478,610.07	
Less: Inventory, December 31, 1947		<u>68,217.28</u>	
			<u>4,410,392.79</u>
GROSS PROFIT ON SALES			331,210.60
<u>COMMISSIONS EARNED</u> (Sales \$91,162.42)..			<u>8,343.47</u>
			339,554.07
<u>EXPENSES</u>			<u>221,016.64</u>
OPERATING PROFIT			118,537.43
<u>OTHER INCOME:</u>			
Discount on Purchases.....		710.09	
Miscellaneous.....		376.36	
Dividends.....		800.00	
Gain on Sale of Automobile.....		<u>1,192.19</u>	
			<u>3,078.64</u>
			121,616.07
<u>OTHER DEDUCTIONS:</u>			
Bank Fees.....		2,729.71	
Interest Expense.....		1,389.99	
Taxes:			
Gross Receipts.....	750.43		
Occupancy.....	6.00		
New York State Unincorporated			
Business.....	<u>4,035.64</u>		
		4,792.07	
Depreciation:			
Furniture and Fixtures.....	281.78		
Automobile.....	<u>567.19</u>		
		<u>848.97</u>	
			<u>9,750.74</u>
NET INCOME FOR THE PERIOD			\$ 111,855.33

CONTINENTAL OIL COMPANYSCHEDULE #1

- 0 -

STATEMENT OF EXPENSE
JANUARY 1, 1947 to DECEMBER 31, 1947

Advertising and Selling.....	\$ 19,266.99
Commissions Paid.....	49,061.65
Sampling and Analysis.....	10,366.27
General Expense.....	1,788.19
Insurance - Auto and General.....	2,893.04
Postage.....	7,389.90
Legal and Professional.....	10,428.23
Rent and Light.....	7,448.28
Salaries and Bonuses.....	72,851.03
Payroll Taxes.....	1,421.05
Traveling and Entertaining.....	26,588.88
Stationery and Printing.....	1,448.49
Telephone, Telegraph and Cables.....	11,919.53
Auto Maintenance and Repairs.....	523.09
Warehouse Supplies.....	112.02
Mineral Research.....	300.00
	223,816.64
Less: Expenses Reimbursed.....	<u>2,800.00</u>
TOTAL	\$ 221,016.64

[fol. 487]

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CONTINENTAL ORE COMPANYEXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	<u>TOTAL</u>	<u>HENRY J. LEIB</u>	<u>ERNA D. LEIB</u>	<u>LINA SCHLOSS</u>
<u>BALANCE</u> , January 1, 1947.....\$	202,197.75	77,975.67	78,163.44	46,058.64
<u>Add:</u>				
Net Income for the Year Ended December 31, 1947	<u>111,855.33</u>	<u>44,742.13</u>	<u>44,742.13</u>	<u>22,371.07</u>
	314,053.08	122,717.80	122,905.57	68,429.71
<u>Deduct:</u>				
Withdrawals during the Year Ended December 31, 1947.....	<u>66,784.67</u>	<u>29,521.74</u>	<u>26,650.92</u>	<u>10,612.01</u>
CAPITAL, DECEMBER 31, 1947	\$ 247,268.41	93,196.06	96,254.65	57,817.70

[ol-488]

CONFIDENTIAL ONE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1948

to

DECEMBER 31, 1948

(as reports)

DAVID B. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

10 NECTOR STREET

NEW YORK 6, N. Y.

488

[fol. 489]

DAVID B. JACOBS & COMPANY
 CERTIFIED PUBLIC ACCOUNTANTS
 19 RECTOR STREET
 NEW YORK 6, N. Y.

DAVID B. JACOBS
 S. WALTER SAUTMAN
 HENRY OPPENHEIM
 JOSEPH BLUMENTHAL
 MAURICE G. PAYSAN
 HARRY MONRO

DIGEST 4-7870

LEWIS ADLER
 EDWIN M. ADLER

March 3, 1949

Continental Ore Company
 500 Fifth Avenue
 New York, N. Y.

Dear Sirs:

The audit of your books of accounts and records for the year ended December 31, 1948 has been completed and we hand you herewith our report thereon:

EXHIBIT
"A" - BALANCE SHEET, DECEMBER 31, 1948

Schedule

- #1 - Statement of Accounts Receivable
- #2 - Statement of Accounts Payable
- #3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
 JANUARY 1, 1948 to DECEMBER 31, 1948

- #1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

Respectfully submitted,

David B. Jacobs
 Certified Public Accountants.

CONTINENTAL ONE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1948ASSETSCURRENT ASSETS:

Cash in New York Trust Company.....\$	155,429.51
Cash on Hand.....	927.17
Accounts Receivable.....	474,972.99
Merchandise Inventory.....	165,041.48
Advances:	
On Merchandise Purchases.....	52,282.14
On Future Duty and Freight.....	41,554.73
Accounts Payable - Debit Balances....	6,354.13
Investment in Securities - at Cost...	13,421.25
(Market Value \$10,400.00)*	
Sundry Receivables...../.....	705.40
Unexpired Insurance.....	<u>325.00</u>

TOTAL CURRENT ASSETS 919,013.80

FIXED ASSETS:

Furniture and Fixtures.....	6,494.35
Less: Accumulated Depreciation....	<u>868.53</u>

TOTAL FIXED ASSETS 5,730.82

OTHER ASSETS:

Deposits and Other Deferred Items....	<u>2,010.33</u>
---------------------------------------	-----------------

TOTAL ASSETS \$ 926,754.95

Open Letters of Credit with The New York
Trust Company at December 31, 1948
totalled \$238,776.75.

*Market Value February 9, 1949.

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CONTINENTAL ORE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1948LIABILITIES AND CAPITALLIABILITIES:

Accounts Payable.....	\$ 381,897.68
Due to Coal Export Corporation.....	200,000.00
Due to Barities Corporation.....	2,500.00
Accounts Receivable - Credit Balances	2,052.29
Sundry Payroll Taxes Accrued.....	351.85
Accrued Expenses.....	1,490.60
Bonuses Payable.....	13,726.72
Employees' Income Tax Withheld.....	3,815.25
New York State Unincorporated Business Tax Payable.....	<u>5,952.51</u>

TOTAL LIABILITIES

611,792.90

PARTNERS' CAPITAL, December 31, 1948.....214,962.05

TOTAL LIABILITIES AND CAPITAL

\$ 926,754.95

[fol. 493]

Page 7

CONTINENTAL OIL COMPANYSCHEDULE #3

- 0 -

STATEMENT OF SECURITIES OWNEDDECEMBER 31, 1948

<u>NO. OF SHARES</u>		<u>COST</u>	<u>MARKET VALUE FEB. 9/49</u>
100	American Car and Foundry 7 1/2 Pfd. .0	9,298.50	7,700.00
200	Grumman Aircraft and Engineering..	<u>4,122.75</u>	<u>3,200.00</u>
	TOTAL	<u>\$ 13,421.25</u>	<u>10,900.00</u>

[fol. 494]

CONTINENTAL ORE COMPANYEXHIBIT "B"

- C -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1948 to DECEMBER 31, 1948

<u>SALES</u>	\$	6,476,811.83
<u>COST OF GOODS SOLD:</u>		
Inventory, January 1, 1948.....	68,217.28	
Purchases.....	5,620,571.26	
Freight, Customs and Insurance.....	<u>311,433.94</u>	
	6,200,222.48	
Less: Inventory, December 31, 1948...	<u>165,041.48</u>	
		<u>6,035,181.00</u>
GROSS PROFIT ON SALES		441,630.83
<u>COMMISSIONS EARNED</u> (Sales \$181,146.92)....		<u>9,969.45</u>
		451,500.28
<u>EXPENSES</u> , per Schedule #1.....		<u>279,350.42</u>
OPERATING PROFIT		172,209.86
<u>OTHER INCOME:</u>		
Discount on Purchases.....	2,198.57	
Dividends.....	750.00	
Miscellaneous.....	<u>78.42</u>	
		<u>3,026.99</u>
		175,256.85
<u>OTHER DEDUCTIONS:</u>		
Bank Fees.....	6,662.54	
Interest Expense.....	3,112.91	
Depreciation - Furniture and Fixtures	484.63	
Loss on Sales of Securities.....	750.18	
New York City Gross Receipts and		
Occupancy Taxes.....	283.78	
New York State Unincorporated		
Business Tax.....	<u>5,928.51</u>	
		<u>12,252.55</u>
NET INCOME FOR THE YEAR		\$ <u>158,004.30</u>

[Vol. 495]

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Page 9

CONTINENTAL OIL COMPANYSCHEDULE #1

- 0 -

STATEMENT OF EXPENSESJANUARY 1, 1948 to DECEMBER 31, 1948

Advertising and Selling.....	23,012.92	
Agencies - Maintenance and Expenses...	12,520.58	
Commissions Paid.....	42,046.46	
Sampling and Analysis.....	8,070.01	
General Expenses.....	5,247.83	
General Insurance.....	444.80	
Postage and Parcel Post.....	10,122.21	
Legal and Professional.....	9,360.51	
Rent and Light.....	14,305.23	
Salaries.....	73,403.79	
Payroll Taxes.....	1,145.87	
Traveling and Entertaining.....	28,348.22	
Stationery and Printing.....	1,824.18	
Telephone, Telegraph and Cables.....	21,002.08	
Mineral Research.....	4,770.46	
Chemical Dept. Expenses (Exclusive of Salaries.....)	<u>5,219.06</u>	
		286,240.42
Less: Expenses Recovered.....		<u>6,900.00</u>
TOTAL EXPENSES		\$ <u>279,350.42</u>

CONTINENTAL ORE COMPANYEXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	<u>TOTAL</u>	<u>HENRY J. LEIR</u>	<u>ERNA D. LEIR</u>	<u>LINA SCHLOSS</u>
<u>BALANCE</u> , January 1, 1948.....	\$ 247,268.41	93,196.06	96,254.65	57,817.70
<u>Add:</u>				
Adjustment re: 1947 New York State Unincorporated Business Tax.....	1,008.91	403.57	403.57	201.77
Adjustment re: Reserve for Royalties.....	<u>6,827.50</u>	<u>2,755.00</u>	<u>2,755.00</u>	<u>1,377.50</u>
ADJUSTED CAPITAL, JANUARY 1, 1948	255,104.82	96,354.63	99,413.22	59,396.97
<u>Add:</u>				
Net Income for the Year, January 1, 1948 to December 31, 1948.....	<u>148,006.30</u>	<u>63,201.72</u>	<u>63,201.72</u>	<u>31,600.86</u>
	413,169.12	159,556.35	162,614.94	91,097.83
<u>Deduct:</u>				
Withdrawals during the Year Ended December 31, 1948	<u>98,207.07</u>	<u>28,841.36</u>	<u>52,106.40</u>	<u>17,259.31</u>
CAPITAL, DECEMBER 31, 1948	\$ <u>314,962.05</u>	<u>130,714.99</u>	<u>110,508.54</u>	<u>73,738.52</u>

(fol. 497)

PC EX. 121 FOR IL. *

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK, N. Y.

REPORT FOR YEAR

JANUARY 1, 1949

to

DECEMBER 31, 1949

(exempt)

DAVID H. JACOBS & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

10 RECTOR STREET

NEW YORK, N. Y.

DAVID B. JACOBS & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS

10 RECTOR STREET

NEW YORK 6, N. Y.

DAVID B. JACOBS
S. WALTER SAUTMAN
HENRY OPPENHEIM
JOSEPH BLUMENTHAL
MAURICE S. DAYTON
HARRY KRON

CHARTERED

LEON S. APPEL
ELIUDIN M. APPEL

February 28, 1950

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

We have made an examination of your books, records and accounts for the year ended December 31, 1949.

We have verified the balances at the bank by direct correspondence with your depository. Cash on hand was counted and found to be in agreement with the ledger balance. Securities owned were not available for our inspection, but were verified by direct communication with the custodian.

Accounts Receivable were reviewed in detail for collectibility, but were not confirmed by direct correspondence with your customers. As at February 8, 1950, 99.4% of these accounts had been collected.

Merchandise Inventory, priced at cost, is carried herein at an amount submitted by the Company. We have satisfied ourselves as to the arithmetical accuracy and correctness of prices used.

Fixed Assets are stated herein at Cost. It is our opinion that the depreciation for the period under review is adequate.

No outside verification was made of liabilities.

In our opinion, the accompanying statements, subject to the aforementioned comments, present fairly the position of the Company at December 31, 1949 and the results of its operations for the year ended on that date.

David B. Jacobs & Co.

Certified Public Accountants.

[fol. 499]

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CONSTITUTIONAL CURE COMPANYC O N T E N T SE X H I B I T

"A" - BALANCE SHEET, DECEMBER 31, 1949

Schedule

#1 - Statement of Accounts Receivable

#2 - Statement of Accounts Payable

#3 - Statement of Securities Owned

"B" - STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1949 to DECEMBER 31, 1949

#1 - Statement of Expenses

"C" - STATEMENT OF CAPITAL ACCOUNTS

----- 0 -----

530.

[fol. 500]

BALANCE SHEET
DECEMBER 31, 1949

[fol. 501]

Page 3

CONTINENTAL ONE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1949ASSETSCURRENT ASSETS:

Cash in New York Trust Company.....\$	262,724.38
Cash on Hand.....	848.70
Accounts Receivable.....	94,154.26
Merchandise Inventory - as submitted..	124,534.00
Advances:	
On Merchandise Purchases.....	7,589.91
On Future Duty and Freight.....	24,382.62
Accounts Payable - Debit Balances.....	3,121.24
Investment in Securities - at Cost....	13,769.31*
Sundry Receivables.....	6,151.39
Unexpired Insurance.....	475.00
Advance Re: 1950 Federal Income Taxes.	<u>21,202.49</u>

TOTAL CURRENT ASSETS 558,953.30

FIXED ASSETS:

Furniture and Fixtures.....	7,007.82
Less: Accumulated Depreciation.....	<u>1,540.03</u>

TOTAL FIXED ASSETS 5,467.79

OTHER ASSETS:

Deposits and Other Deferred Items.....	<u>1,756.50</u>
--	-----------------

TOTAL ASSETS \$ 566,177.99

*Market Value, February 8, 1950 - \$12,337.50.

Open Letters of Credit with the New York Trust Company at December 31, 1949 totalled \$28,994.01.

CONSTITUTIONAL ONE COMPANYEXHIBIT "A"

- 0 -

BALANCE SHEET
DECEMBER 31, 1949LIABILITIES AND CAPITALLIABILITIES:

Accounts Payable.....	\$ 244,005.10
Accounts Receivable - Credit Balances.	694.94
Sundry Payroll Taxes Accrued.....	424.56
Accrued Expenses.....	4,086.12
Bonuses Payable.....	3,076.51
Employees' Income Tax Withheld.....	3,716.10
New York State Unincorporated Business Tax Payable.....	<u>4,734.66</u>

TOTAL LIABILITIES 260,397.99

PARTNERS' CAPITAL, DECEMBER 31, 1949..... 305,779.60TOTAL LIABILITIES AND CAPITAL \$ 566,177.99

(fol. 503)

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CONFIDENTIAL ONE COMPANYEXHIBIT "B"

- 0 -

STATEMENT OF INCOME AND PROFIT AND LOSS
JANUARY 1, 1949 to DECEMBER 31, 1949

<u>SALES</u> (Includes Inter-Company Sales).....\$	9,802,169.27
<u>COST OF GOODS SOLD:</u>	
Inventory, January 1, 1949.....	165,041.48
Purchases.....	8,632,914.09
Freight, Customs and Insurance.....	693,794.72
	9,491,750.29
Less: Inventory, December 31, 1949....	124,534.00
	<u>2,267,217.29</u>
<u>GROSS PROFIT ON SALES</u>	434,951.98
<u>COMMISSIONS EARNED</u> (Sales \$553,885.00).....	<u>36,980.48</u>
	471,932.46
<u>EXPENSES</u> , per Schedule #1.....	<u>299,072.28</u>
<u>OPERATING PROFIT</u>	172,860.18
<u>OTHER INCOME:</u>	
Dividends.....	1,100.00
Miscellaneous.....	<u>1,633.73</u>
	<u>2,733.73</u>
	175,593.91
<u>OTHER DEDUCTIONS:</u>	
Bank Fees.....	6,981.21
Interest Expense.....	5,445.09
Depreciation - Automobile.....	448.82
Depreciation - Furniture and Fixtures.....	674.90
Miscellaneous Taxes.....	31.95
Loss on Sale of Automobile.....	291.71
Loss on Sale of Securities.....	221.28
Loss on Sale of Furniture and Fixtures.....	10.38
New York State Unincorporated	
Business Tax.....	<u>4,394.66</u>
	<u>18,500.00</u>
<u>NET INCOME FOR THIS PERIOD</u>	<u>\$ 157,093.91</u>

CONFIDENTIAL ONE COMPANYSCHEDULE #1

- 0 -

STATEMENT OF EXPENSES
JANUARY 1, 1949 to DECEMBER 31, 1949

Advertising and Selling.....\$	12,073.28
Agencies - Maintenance and Expenses.....	27,012.21
Commissions Paid.....	55,115.09
Sampling and Analysis.....	7,878.21
General Expenses.....	5,175.57
General Insurance.....	537.31
Postage and Parcel Post.....	11,103.47
Legal and Professional.....	35,919.99
Rent and Light.....	14,117.92
Salaries.....	93,915.04
Payroll Taxes.....	1,387.14
Traveling and Entertaining.....	34,606.78
Stationery and Printing.....	1,590.25
Telephone, Telegraph and Cables.....	24,169.03
Auto Maintenance and Expenses.....	<u>1,220.99</u>
	325,622.28
Less: Expenses Recovered.....	<u>26,550.00</u>
TOTAL EXPENSES	\$ <u>299,072.28</u>

[fol. 505]

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CONTINENTAL OIL COMPANYEXHIBIT "C"

- 0 -

STATEMENT OF CAPITAL ACCOUNTS

	<u>TOTAL</u>	<u>HENRY J. LEIB</u>	<u>ERNA D. LEIB</u>	<u>LINA SCHLOSS</u>
<u>BALANCE, JANUARY 1, 1949</u>	\$ 314,962.05	130,714.99	110,508.54	73,738.52
<u>Add:</u>				
Adjustment re: 1948 New York State Unincorporated Business Tax.....	<u>1,489.62</u>	<u>595.85</u>	<u>595.85</u>	<u>297.92</u>
ADJUSTED CAPITAL	316,451.67	131,310.84	111,104.39	74,036.44
<u>Add:</u>				
Net Income for the Year January 1, 1949 to December 31, 1949.....	<u>157,093.91</u>	<u>62,837.57</u>	<u>62,837.56</u>	<u>31,418.78</u>
	473,545.58	194,148.41	173,941.95	105,455.22
<u>Deduct:</u>				
Withdrawals for the Year Ended December 31, 1949...	<u>167,765.98</u>	<u>76,140.51</u>	<u>68,393.76</u>	<u>23,231.71</u>
CAPITAL, DECEMBER 31, 1949	\$ <u>305,779.60</u>	<u>118,007.90</u>	<u>105,548.19</u>	<u>82,223.51</u>

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 123 FOR IDENTIFICATION

CONTINENTAL ORE CORPORATION
AND CONTINENTAL ORE COMPANY

TABULATION REFLECTING INCREASE IN NET WORTH

	Sales	Sales Value of Commission Income	Overhead Expenses	Net Income	Net Worth December 31st
June 13, 1939 to December 31, 1939,	\$ 75,225		\$ 75,970	(\$ 3,326)	\$ 36,674
1940,	162,771	\$ 40,000	18,005	(1,186)	35,487
1941,	391,507	233,000	22,550	4,748	39,465
1942,	864,541	301,000	55,765	33,160	80,774
1943,	916,753	296,000	41,802	43,140	91,679
1944,	1,236,000	340,000	61,210	67,968	131,935
1945,	1,167,984	1,069,000	78,515	76,839	165,010
1946,	2,785,270	230,000	150,041	77,927	202,198
1947,	4,741,603	91,000	221,016	111,855	247,268
1948,	6,746,811	181,000	279,350	158,004	314,962
1949,	9,802,169	553,000	299,072	157,000	305,779

IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT NO. 124 FOR IDENTIFICATION

CONTINENTAL ORE GROUP - U. S. COMPANIES

1950 - 1957

STATEMENT OF NET WORTH

1950 1951 1952 1953 1954 1955 1956 1957

CALENDAR YEAR

Continental Ore Corporation,.....	\$ 629,865	\$ 789,329	\$1,050,568	\$1,182,126	\$1,501,937	\$1,750,000	\$2,357,224	\$3,201,109
(1) Austro-American Aluminum Corp.,.....	64,164	80,682	98,915	112,495	123,086	141,069	157,189	174,495(1)
Borites Corporation,.....	58,483	75,509	91,914	97,792	100,219	115,895	134,525	152,354
Coal Export Corporation,.....		24,620	35,381	38,050	40,787	47,110	69,186	85,657
Total,.....	\$1,068,533	\$1,287,355	\$1,276,778	\$1,430,463	\$1,766,029	\$2,054,094	\$2,718,124	\$3,613,615

FISCAL YEAR

Continental Ore Company,.....			365,078	252,740	214,178	254,166	253,159	312,625
International Ore & Fertilizer Corp. and subsidiaries,.....	34,007	58,390	78,973	95,097	151,531	234,304	409,725	867,000
Continental Lead & Zinc Corp.,.....	37,090	56,082	85,456	90,385	107,010	120,669	136,983	162,000
Overseas investors,.....							106,000	226,000
Cement Import Corp.,.....						6,793	8,242	26,000
Continental Aluminum Corp.,.....							18,000	43,000
Brazilian Iron Ore Importing Corp.,.....							4,500	40,000
International Asphalt Corp.,.....							4,000	23,000
International Agricultural Corp.,.....							2,800	26,000
TOTAL,.....	\$1,139,630	\$1,401,827	\$1,806,285	\$1,868,685	\$2,238,748	\$2,670,026	\$3,661,533	\$5,339,240

(1) Name changed to Austro American Commercial Corp. in 1957.

NOTE: Fiscal year companies estimated at 12/31/57 - Unaudited.

CONTINENTAL ORE GROUP - U. S. COMPANIES1939 - 1949~~EX 124~~ FOR IDENT.STATEMENT OF NET WORTH - DECEMBER 31st

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Continental Ore Corp.*,.....	\$36,674	\$35,487	\$39,465								
Continental Ore Company,.....				\$80,774	\$91,679	\$131,935	\$165,010	\$202,198	\$247,268	\$314,962	\$305,779
Austro American Aluminum Corp.,.....										20,747	46,425
Borites Corp.,.....										21,698	39,769
Coal Export Corp.,.....									56,973	110,659	129,410
Continental Fertilizer Corp.,.....										48,903	138,140
Magnolithe Corporation,.....										19,609	95,394
TOTAL,.....	\$36,674	\$35,487	\$39,465	\$80,774	\$91,679	\$131,935	\$165,010	\$202,198	\$304,241	\$536,578	\$754,917

*Dissolved 12/18/42.

Jof

[fol. 509]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 125 FOR IDENTIFICATION

EX 125 FOR IDENT.

Plaintiffs' Exhibit No. 125 for Identification

EX 125 FOR IDENT.

CONTINENTAL ORE CORPORATION AND CONTINENTAL ORE COMPANYFLUORSPAR SALES

YEARTOTAL.....	PRIVATE INDUSTRY.....	GOVERNMENT.....	
	NET TONS	AMOUNT	NET TONS	AMOUNT	NET TONS	AMOUNT
June 13, 1939 to December 31, 1957,.....	370.29	\$ 8,326.48	370.29	\$ 8,326.48		
1940,.....	2,167.29	43,134.53	2,167.29	43,134.53		
1941,.....	6,935.74	127,766.10	6,879.66	126,212.68	56.08	\$ 1,553.42
1942,.....	12,042.75	252,093.13	11,826.69	346,124.89	216.06	5,168.24
1943,.....	18,312.90	511,865.13	15,895.40	431,609.66	2,417.50	80,255.47
1944,.....	30,136.46	833,884.09	26,902.95	715,183.14	3,233.51	118,700.95
1945,.....	29,217.48	778,970.47	29,000.33	770,894.27	217.15	8,076.20
1946,.....	32,773.10	891,344.10	32,773.10	891,344.10	-	-
1947,.....	49,216.90	1,258,080.82	49,216.90	1,258,080.82	-	-
1948,.....	72,448.70	1,963,267.49	72,448.70	1,963,267.49	-	-
1949,.....	8,838.86	1,385,324.88	48,838.86	1,385,324.88	-	-
1950,.....	84,177.20	2,411,517.90	84,177.20	2,411,517.90	-	-
1951,.....	86,419.35	3,269,681.71	80,468.11	2,442,518.98	5,951.24	327,162.73
1952,.....	141,166.21	5,433,558.73	116,716.17	4,016,300.35	24,450.04	1,415,258.38
1953,.....	117,248.56	4,807,267.31	71,634.47	2,321,618.56	45,614.09	2,477,648.75
1954,.....	54,483.24	2,031,198.25	37,414.99	1,118,339.35	17,068.25	912,858.90
1955,.....	79,535.91	2,649,261.65	74,247.48	2,439,479.67	5,288.43	213,281.98
1956,.....	150,240.35	4,613,312.25	87,325.31	2,808,803.53	62,915.04	1,804,508.72
1957,.....	160,681.11	6,527,633.76	99,469.83	3,857,727.69	61,211.28	2,669,836.07
TOTAL,.....	1,176,412.40	\$39,797,488.78	947,773.73	\$29,763,178.97	228,638.67	\$10,034,309.81

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**CONTINENTAL ORE CORPORATION
AND CONTINENTAL ORE COMPANY**

**SUMMARY OF FLUORSPAR SALES
JUNE 13, 1939, TO DECEMBER 31, 1957**

	<u>NET TONS</u>	<u>AMOUNT</u>
Private industry,...	947,773.73	\$29,763,178.97
Government,.....	228,638.67	10,034,309.81
Total,.....	<u>1,176,412.40</u>	<u>\$39,797,488.78</u>

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[fol. 511]

IN UNITED STATES DISTRICT COURT

PLAINTIFFS' EXHIBIT No. 126 FOR IDENTIFICATION

EX-126 FOR IDENT.

EX-126 FOR IDENT.

CONTINENTAL ORE COMPANY

COMPUTATION BASED ON CONTINENTAL
HAVING SOLD COMPARABLE TO FLUORESPAR SALES

HAVING SOLD COMPARABLE TO FLOURFAR SALES							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	FERROVANADIUM LBS. SOLD BY DEFENDANTS	% OF INDUSTRY	TOTAL LBS. BASED ON % OF INDUSTRY	LESS LBS. ACTUALLY SOLD	DIFFERENCE BETWEEN LBS. SOLD AND % OF INDUSTRY	COL. 5 AT \$2.70 PER LB.	GROSS PROFIT AT 12%
YEAR							
1/2 year 1939,....	582,575	.14	815.60		815.60	\$ 2,202.12	\$ 264.25
1940,.....	1,894,742	.93	17,621.10	15,648.50	1,972.60	5,326.02	639.12
1941,.....	4,046,695	2.16	87,408.61	70,845.76	16,562.85	44,719.70	5,366.36
1942,.....	3,884,361	3.34	129,737.66	99,393.87	30,343.79	81,928.23	9,831.38
1943,.....	3,843,589	4.51	173,345.86	17,052.76	156,293.10	421,991.37	50,638.96
1944,.....	3,112,605	7.28	226,597.64	7,120.52	219,477.12	592,588.22	71,110.59
1945,.....	2,042,911	9.02	184,270.57	8,127.00	176,143.57	475,587.64	57,070.51
1946,.....	1,265,545	11.79	149,207.76	100.00	149,107.76	402,590.95	48,310.91
1947,.....	1,295,397	14.94	193,532.31		193,532.31	522,537.24	62,704.47
1948,.....	2,491,294	21.84	544,098.61		544,098.61	1,469,066.25	176,287.95
1/2 year 1949,....	1,245,697	20.63	256,987.29		256,987.29	693,865.68	83,263.88
TOTAL,.....	25,705,411		1,963,623.01	218,288.41	1,745,334.60	\$3,712,403.42	\$565,488.38

CONFIDENTIAL ORE COMPANY

EX 133 FOR
JUN 13 1958

ILLUSTRATION OF GROSS PROFIT ON SALE OF VAN EX

INVOICE S 259 - ATLAS STEELS LIMITED - 3/28/42

Sale of 6,615 lbs. Vanadium container in Van Ex,

\$2.40 per pound of Vanadium container

F.O.B. American border,..... \$15,876.00

COMPUTATION OF GROSS PROFIT

	<u>Actual</u>	<u>At 80¢ per lb. V 205</u>
Sales Price,.....	<u>\$15,876.00</u>	<u>\$15,876.00</u>
Cost of Sales:		
Purchase of \$11,774.70 V 205,.....	\$12,997.01	\$ 9,419.76
Freight from mine,.....	546.00	546.00
Drums,.....	154.00	154.00
Processing costs, freight out and overhead,.....	<u>328.85</u>	<u>323.85</u>
Total cost,.....	<u>\$14,025.86</u>	<u>\$10,443.61</u>
Gross Profit,.....	<u>\$ 1,850.14</u>	<u>\$ 5,427.39</u>
% of Gross Profit to Sales,.....	<u>11.6</u>	<u>34.2</u>

Continental Air Group
 Memorandum - Calculation of Profits
 Lost on assumption that Continental would have
 Had the same Percentage of the Market 1941 - 1949

Share of market in 1941:

Pounds sold by Continental = 75606
 Pounds sold by Defendants 4,046,695 = 1.86833%

Profits lost 1942-1949:

	Pounds sold by Defendants	Pounds sold by Continental	Profits lost at 12% of sales	General Price Change in 1957	Profits lost in 1957
1942	3,884,361	72573	19594710	2351365	4454999
1943	3,843,589	71811	19388970	2326676	3779266
1944	3,112,605	58154	15701580	1884190	3011688
1945	2,042,911	38168	10305360	1236643	1932960
1946	1,265,545	23645	6384150	766098	1104139
1947	829,539	24202	6534540	784145	986956
1948	2,491,294	46546	12567420	1508090	1763349
2 year - 1949	1,245,697	23274	6283980	754078	890378
			11611285		17523736

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EX-106
 2070 BUFF 45 706

Mr. 139 for Identification

139 FOR IDENT.

139 FOR IDENT.

IN UNITED STATES DISTRICT COURT
PLAINTIFFS' EXHIBIT No. 139 FOR IDENTIFICATION

543

[fol. 513]

8 0202
543 543

EXHIBIT

EXHIBIT 139 FOR IDENTIFICATION

Plaintiffs' Exhibit No. 139 for Identification

1942	3884361	72573	19594710	2351365	172453	4054999
1943	2843579	71811	19388970	2326676	162432	3779266
1944	3112605	58154	15701580	1884190	159840	3011688
1945	2042911	38168	10305360	1236643	156307	1932960
1946	1265575	23645	6384150	766098	144125	1104139
1947	6295397	24202	6534540	784145	125864	986956
1948	2491294	46546	12567420	1508090	116926	1763349
1949	1245697	23274	6283980	754078	118075	890378
				11611285		17523736

Plaintiffs' Exhibit No. 139 FOR IDENT.

513

513

FOR IDENT.

Continental Ore Group
 Computation of Loss of Profit from Possible
 Sale of Denominations Based Upon
 Various Possible Shares of the Market, contd.

IN UNITED STATES COURT OF DISTRICT COLUMBIA
 Exhibit No. 141
 Identification

Sales lost at 2.70 per
 pound (pounds per pound
 at 2.70)

1% basis

2%

3%

4%

5%

6%

7%

8%

9%

10%

11%

12%

13%

14%

15%

1939
(2 year)

1940

1941

1942

1943

1944

1945

-	-	-	-	-	4693140	6220530	2682990
-	208710	1438560	-	15070860	14624550	8198820	
-	5324400	12364650	4626970	25448580	23028570	13714650	
-	10440360	23290740	15114600	35826300	31432590	19230480	
587250	15556050	34216830	25602480	46203750	39836610	24746580	
2160270	20672010	45142520	36090360	56581470	48240630	30262410	
3733020	25787700	56069010	46577970	66959190	56644650	35778240	
5306040	30903390	66995100	57065150	77336910	65048670	41294070	
6879060	36019350	77921190	67553460	87714630	73452690	46809900	
8452080	41135040	88847280	78041340	98092350	81856980	52325730	
10024830	46251000	99773100	88529220	108470070	90261000	57841560	
11597850	51366690	110699190	99016830	118847790	98665020	63357390	
13170870	56482380	121625280	109504710	129225510	107069040	68873220	
14743890	61598340	132551370	119992590	139602960	115479060	74389320	
16316640	66714030	143477460	130480200	149980680	123877080	79905150	

Profits lost at 12% of
 sales (above figures x 12%):

1% basis

2%

3%

4%

5%

6%

7%

8%

9%

10%

11%

12%

-	-	-	-	-	563177	746464	321959
-	25045	172627	-	1808503	1754946	983858	
-	638928	1483758	555238	3053830	2763428	1645758	
-	1252843	2794889	1813752	4299156	3771911	2307658	
70470	1866726	4176020	3072298	5644450	4780393	2969590	
259232	2480641	5417150	4330843	6789776	5788876	3631489	
447962	3094524	6728281	5589356	8035103	6797358	4293389	
636725	3708407	8035412	6847902	9280429	7805840	4955288	
825489	4322322	9850593	8106415	10525756	8814323	5617188	
1014250	4936205	10661674	9364961	11771082	9822838	6279088	
1202980	5550120	11972772	10623506	13016408	10831320	6940987	
1291742	6164023	13262902	11882020	14261725	11839807	7107887	

2

1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	Total
208710	1438560	-	4693140	6220530	2682990	3389850	3497580	6726510	3363390	30673990
5324400	12364650	4626970	25448580	23028570	13714650	10223820	10492740	20179530	10090170	135494100
10440360	23290740	15114600	35826300	31432590	19230480	13640940	13970320	26906040	13453560	203325930
15556050	34246830	25602480	46203750	39836610	24746580	17057790	17487900	33632550	16816950	271744740
20672010	45142520	36090360	56581470	48240630	30262410	20474910	20985480	40359060	20180340	341149860
25787700	56069010	46577970	66959190	56644650	35778240	23871760	24483060	47085570	23543730	410553900
30903390	66995100	57065150	776910	65048670	41294070	27308880	27980640	53812080	26907120	479958750
36019350	77921190	67553460	87714630	73452690	46809900	30725730	31478220	60538320	30270510	549363060
41135040	88847280	78041340	98092350	81856970	52325730	34142850	34975800	67264830	33633900	618768180
46251000	99773100	88529220	108470070	90261000	57841560	37559700	38473380	73991340	36997290	688172490
51366690	110699190	99016830	118847790	98665020	63357390	40976550	41970960	80717850	40360680	757576800
56482380	121625280	109504710	129225510	107069040	68873220	44973670	45468540	87444360	43724070	826981650
61598340	132551370	119992590	139602960	115473060	74389320	47810520	48966120	94170870	47087460	896386500
66714030	143477460	130480200	149980680	123877080	79905150	51227640	52463700	100897380	50450850	965790810
25045	172627	-	563177	746464	321959	406782	419710	807181	403607	3668880
638928	1483758	555238	3053830	2763428	1645758	1226852	1259128	2421544	1210820	16259292
1252843	2794889	1813752	4299156	3771911	2307658	1636913	1678838	3228725	1614427	24399112
1866726	4106020	3072298	5644450	4780393	2969590	2046935	2098548	4035906	2018039	32609370
2480641	5417150	4330843	6789776	5788876	3631489	2456989	2518258	4843087	2421641	40937982
3094529	6728281	5589356	8035103	6797358	4293389	2867011	2937967	5650268	2825248	49266467
3708407	8039412	6847902	9280429	7805840	4955288	3277066	3357672	6457450	3228854	57595050
4322322	9350543	8106415	10525756	8814323	5617188	3687088	3777386	7264598	3632461	65923567
4936205	10661674	9364961	11771082	9822838	6279088	4097142	4197096	8071780	4036068	74252184
5550120	11972772	10623506	13016408	10831320	6940987	4507164	4616806	8878961	4439675	82580699
1114	322220	105	14261725	829802	710257	1012	1012	2181111	4843285	20250217

Plaintiff's Exhibit No. 141 / Proffers identification.

at 2.70)	1 % basis	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %	11 %	12 %	13 %	14 %	15 %
		208710	1438560		4693140	6220530	2682990	3389850	3497580	6					
					15070860	14624550	8198820	6806870	6995160	13					
		5324400	12364650	4626990	25448580	23028570	13714650	10223820	10492740	20					
		10440360	23290740	15114600	35826300	31432590	19230480	13640940	13990320	26					
		587250	15556050	34216830	25602480	46203750	39836610	24746580	17057790	17487900	33				
		2160270	20672010	45142920	36090360	56581470	48240630	30262410	20474910	20985480	40				
		3733020	25787700	56069010	46577970	66959190	56644650	35778240	23871760	24483060	47				
		5306040	30903390	66995100	57065850	77336910	65048670	41294070	27308880	27980640	53				
		6879060	36019350	77921190	67553460	87714630	73452690	46809900	30725730	31478220	60				
		8452080	41135040	88847280	78041340	98092350	81856980	52325730	34142850	34975800	67				
		10024830	46251000	99773100	88529220	108470070	90261000	57841560	37559700	38473380	73				
		11597850	51366690	110199190	99016830	118847790	98665020	63357390	40976550	41970960	80				
		13170870	56482380	121625280	109504710	129225510	107069040	68873220	44393670	45468540	87				
		14743890	61598340	132551370	119992590	139602960	115473060	74389320	47810520	48966120	94				
		16316640	66714030	143477460	130480200	149980680	123877080	79905150	51227640	52463700	100				

Profits lost at 12% of sales (above figures $\times 12\%$):

1 % Basis	-	-	-	-	563177	746464	321959	406782	419710	20
2 %	-	25045	172627	-	1808503	1754946	983858	816836	839419	16
3 %	-	638928	1483758	555239	3053830	2763428	1645758	1226858	1259129	24
4 %	-	1252843	2794889	1813752	4299156	3771911	2307658	1636913	1678838	32
5 %	70470	1866726	4106020	3072298	5644450	4780393	2969590	2046935	2098548	40
6 %	259232	2480641	5417150	4330843	6789776	5788876	3631489	2456989	2518258	48
7 %	447962	3094524	6728281	5589356	8035103	6797358	4293389	2867011	2937967	56
8 %	636725	3708407	8039412	6847902	9280429	7805840	4955288	3277066	3357672	64
9 %	825489	4322322	9850543	8106415	10525756	8814323	5617188	3687088	3777386	72
10 %	1014250	4936205	10661674	9364961	11771082	9822838	6279088	4097142	4197096	80
11 %	1202980	5550120	11972772	10623506	13016408	10831320	6940987	4507164	4616806	88
12 %	1391742	6164003	13283903	11882020	14261735	11839802	7602887	4917186	5036515	96
13 %	1580504	6777886	14595034	13140565	15507061	12848285	8264786	5327240	5456225	104
14 %	1769267	7391801	15906164	14399111	16752355	13856767	8926718	5737262	5875934	112
15 %	1957977	8005624	17217295	15657624	17997682	14865250	9588618	6147317	6295644	120

Note: the foregoing figures are expressed in dollars of the individual years. Subsequent rise in the general price level results in higher dollar figure to give equal amount purchasing power.

4693140	6220530	2682990	3389850	3497580	6726510	3363390	30673990
15070860	14624550	8198820	6806770	6995160	13453020	6726780	73523430
970 25448580	23028570	13714650	10223820	10492740	20179530	10090170	135494100
500 35826300	31432590	19230480	13640940	13990320	26906040	13453560	203325930
480 46203750	39836610	24746580	17057790	17487900	33632550	16816950	271744740
360 56581470	48240630	30262410	20474910	20985480	40359060	20180340	341149860
970 66959190	56644650	35778240	23871760	24483060	47085570	23543730	410553900
450 77336910	65048670	41294070	27308880	27980640	53812080	26907120	479958750
460 87714630	73452690	46809900	30725730	31478220	60538320	30270510	549363060
340 98092350	81856980	52325730	34142850	34975800	67264830	33633900	618768180
220 108470070	90261000	57841560	37559700	38473380	73991340	36997290	688172490
830 118847790	98665020	63357390	40976550	41970960	80717850	40360680	757576800
710 129225510	107069040	68873220	44393670	45468540	87444360	43724070	826981650
590 139602960	115473060	74389320	47810520	48966120	94170870	47087460	896386500
200 149980680	123877080	79905150	51227640	52463700	100897380	50450850	965790810

563177	746464	321959	406782	419710	807181	403607	3668880
1808503	1754946	983858	816836	839419	1614362	807214	8822810
239 3053830	2763428	1645758	1226852	1259129	2421544	1210820	16259292
152 4299156	3771911	2307658	1636913	1678838	3228725	1614427	24399112
298 5644450	4780393	2969590	2046935	2098548	4035906	2018039	32609370
243 6789776	5788876	3631489	2456989	2518258	4843087	2421641	40937982
356 8035103	6797358	4293389	2867011	2937967	5650268	2825248	49266467
102 9280429	7805840	4955288	3277066	3357677	6457450	3228859	57595050
115 10525756	8814323	5617188	3687088	3777386	7264598	3632461	65923567
161 11771082	9822838	6279088	4097142	4197096	8071780	4036068	74252184
506 13016408	10831320	6940987	4507164	4616806	8878961	4439675	82580699
20 14261735	11838802	7602887	4917186	5036515	9686142	4843282	90909217
65 15807061	12848285	8264786	5327240	5456225	10493323	5246888	99237797
11 16752355	13856767	8926718	5737262	5875934	11300504	5650495	107566378
24 17997682	14865250	9588618	6147317	6295644	12107686	6054102	115894899

individual years. Subsequent rise in
me to give equal percent producing same.

page 1

Continental Ore Group
Computation of Loss of Profits from Possible
Sale of Ferrovanadium Based Upon
Various Possible Shares of the Market

	1939 (2 year)	1940	1941	1942	1943	1944	1945	1946	1947	
Pounds of ferrovanadium sold by defendants	382575	1894742	4046695	3884361	3843589	3112605	2042911	1265545	1295397	2491
Pounds of ferrovanadium sold by plaintiff (rounded to nearest pound)	26954	37122	75606	99394	21054	2087	10492	100		
Possible shares of the market that plaintiff might have had, less amounts actually sold, in pounds:										
1%	-	-	-	-	17382	23039	9937	12555	12954	24
2%	-	773	5328	-	55818	54165	30366	25211	25908	49
3%	-	19720	45795	17137	14254	35291	50795	37866	38862	79
4%	-	38668	86262	55980	132690	116417	71224	50522	51816	99
5%	2175	57615	126729	94824	171125	147543	91654	63177	64770	124
6%	8001	76563	167196	133668	209561	178669	112083	75833	77724	149
7%	13826	95510	207663	172511	247997	209795	132512	88488	90678	174
8%	19652	114457	248130	211355	286433	240921	152941	101144	103632	199
9%	25478	133405	288597	250198	324869	272047	173370	113799	116586	224
10%	31304	152352	329064	289042	363305	303174	193799	126455	129540	249
11%	37129	171300	369530	327886	401741	334300	214228	139110	142494	274

[Handwritten note:
H. F. Gunlock—A

APPROPRIATION
Engineer Service,
1942-1943

CONTRACTOR & A

CONTRACT FOR:

AMOUNT:

LOCATION:

PAYMENT:

The supplies and
ment are authorized
and are chargeable
ties, the available
the cost of the same

EN

3	1944	1945	1946	1947	1948	1949	Totals
					(to year)		
89	3112605	2042911	1265345	1295397	2491294	1245697	28705411
54	2087	10492	100				278209
82	23039	9937	12555	12954	24913	12457	113227
78	54165	30366	25211	25908	49826	24914	272309
54	85291	50795	37866	28862	54739	37321	501830
90	116417	71224	50522	51816	99652	49828	753059
25	147543	91654	63177	64770	124565	62285	1006462
61	178669	112083	75833	77724	149478	74742	1263518
97	209795	132512	88488	90678	174391	87199	1520570
33	240921	152941	101144	103632	199304	99656	1777625
69	272047	173370	113799	116586	224216	112113	2034679
05	303174	193799	126455	129540	249129	124570	2291734
41	334300	214228	139110	142494	274042	137027	2548787
77	365426	234657	151765	155448	298955	149484	2805240
13	396552	255086	164421	168402	323868	161941	3062295
48	427678	275516	177076	181356	348781	174398	3319950

(2 years)

Pounds of ferrovanadium
sold by defendants

582575 1894742 4046695 3884361 3843589 3112605 2042911 1265545

Pounds of ferrovanadium

sold by plaintiff (rounded
to nearest pound)

26954 37122 75606 99394 21054 2087 10492 100

Possible shares of the market
that plaintiff might have
had, less amounts actually
sold, in pounds:

10%	-	-	-	-	7982	23039	9937	12555
2%	-	773	5328	-	55818	54165	30366	25211
3%	-	18720	45795	17137	14254	55291	50795	37866
4%	-	38668	86262	55980	132690	116417	71224	50522
5%	2175	57615	126729	94824	171125	147543	91654	63177
6%	4001	76563	167196	133668	209561	178669	112083	75833
7%	13826	95510	207663	172511	247997	209795	132512	88488
8%	19652	114457	248130	211355	286433	240921	152941	101144
9%	25478	133405	288597	250198	324869	272047	173370	113799
10%	31304	152352	329064	289042	363305	303174	193799	126455
11%	37129	171300	369530	327886	401741	334300	214228	139110
12%	42955	190247	409997	366729	440177	365426	234657	151765
13%	48781	208194	450464	405573	478613	396552	255086	164421
14%	54607	228142	490931	444417	517048	427678	275516	177076
15%	60432	247089	531398	483260	556484	458204	295945	189732

This contract is authorized by the following laws: Statutory Authority **** Title II of the First War Powers Act, 1941, Act of December 18, 1941 (Public Law 354-77th Cong.), and Executive Order No. 9001, dated December 27, 1941.

[fol. 518]

CONTRACT FOR SUPPLIES

THIS CONTRACT, entered into this 1st day of September, 1943, effective as of the 1st day of June, 1943, by the **UNITED STATES OF AMERICA** (hereinafter called the "Government"), represented by the Contracting Officer executing this contract, and **UNITED STATES VANA-DIUM CORPORATION**, a corporation organized and existing under the laws of the State of Delaware of the City of New York in the State of New York, (hereinafter called the "Contractor"), witnesseth that the parties hereto do mutually agree as follows:

ARTICLE I—SCOPE OF THIS CONTRACT

(a) The Contractor shall, with the utmost secrecy and dispatch, furnish and deliver to the Government, f.o.b. Contractor's plant at Uravan, Colorado, for a period of two years and such additional period or periods as the Government and the Contractor may agree upon except as provided under Article 8 hereof, sufficient B containing therein approximately C units of D and E units of F per month.

(b) The Government shall pay to the Contractor the sum of One Dollar and Ten Cents (\$1.10) per G unit for the D contained in the B and thirty cents (30¢) per G unit for the F contained in the B.

(c) The Contractor shall at the expense of the Government, do all things necessary to ship the B to such location or locations as the Contracting Officer may direct.

(d) The meaning of code symbols B, C, D, E, F and G shall be as contained in Secret Letter dated June 1, 1943.

The contents of said secret letter are hereby made a part of this contract in the same manner as though fully set forth herein.

ARTICLE 2—SAMPLING AND ASSAY

(a) Specifications for the B are to be not less than ten percent (10%) D and the ratio of D to F shall be a ratio approximately five parts of D to not more than one part of F.

(b) The B will be sampled at the plant to which it is sent for processing. One sample shall be taken and this sample shall be divided into four parts, of which one part will be given to the Contractor, one part will be given to the processing plant and two parts retained by the Government. One part retained by the Government will be forwarded to the National Bureau of Standards for D and F assays. The result of this assay shall be considered final unless either party objects, in which event the reserve part retained by the Government shall be submitted to a mutually acceptable third party. The assay result so obtained will be final and binding on all parties.

[fol. 519] IN WITNESS WHEREOF, the parties hereto have executed this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ JOHN R. RUHOFF

John R. Ruhoff,

Lt. Col., Corps of Engineers,
Contracting Officer.

UNITED STATES VANADIUM CORPORATION

By /s/ J. R. VAN FLEET

KR

Vice President

(Seal)

Witnesses:

/s/ S. E. WEBB

244 W. 72nd St., New York, N. Y.

(Address)

/s/ W. HALDANE

320 E 42nd St New York N. Y.

(Address)

.

[fol. 521]

IN UNITED STATES DISTRICT COURT

EXCERPTS FROM DEFENDANT UNION CARBIDE'S
EXHIBIT NO. U-W[Handwritten notations—Classification cancelled 5/24/57—
H. F. Gunlock—AEC Class'n Div.]This document consists of 17 page(s)
No. 3 of 12 copies Series A

APPROPRIATION: 210/40141

E. P. of E & S

1940-1944

CONTRACT NO. W-7405 eng-250

Dated:

WAR DEPARTMENT

CONTRACTOR & ADDRESS	UNITED STATES VANADIUM CORPORATION 30 East 42nd Street New York, New York
CONTRACT FOR:	Materials F and D
AMOUNT:	Approximately \$250,000.00
LOCATION:	"E"
PAYMENT: To be made by:	Finance Officer, U. S. Army, Knoxville, Tennessee.

The supplies and services to be obtained by this instrument are authorized by, are for the purposes set forth in, and are chargeable to the following procurement authorities, the available balances of which are sufficient to cover the cost of the same:

8-25562 P110-08

This contract negotiated and executed under the First War Powers Act, 1941, and Executive Order No. 9001.

Jul 15 1944

[fol. 522] THIS CONTRACT entered into this 26 day of June, 1944, effective as of the 10th day of July 1943, by and between THE UNITED STATES OF AMERICA (hereinafter called the "Government"), represented by the Contracting Officer executing this contract, and UNITED STATES VANADIUM CORPORATION, a corporation organized and existing under the laws of the State of Delaware, of the City of New York, in the State of New York, (hereinafter called the "Contractor"),

WITNESSETH THAT the parties hereto do mutually agree as follows:

ARTICLE I—SCOPE OF THIS CONTRACT

1. The Contractor agrees to sell to the Government and the Government agrees to purchase from the Contractor upon the terms and conditions hereinafter set forth, sufficient S-2 from the Contractor's stockpiles at Location E, consisting of approximately 150,000 L Units of S-2 with such quantities added to the stockpiles as may result from accumulations of S-3, during the term of this contract, to fulfill the requirements of the Government GU plant at Location E during the period July 10, 1943 to July 1, 1944, with prior right to the Contractor to withdraw any quantities of S-2 required to fulfill other commitments with the Manhattan District. The Contractor further agrees to

sell to the Government from and after July 1, 1944, the S-2 remaining in such stockpiles with such quantities added to the stockpiles as may result from accumulations of S-3 during the period until termination or completion of Contract No. W-7405 eng-32, upon the same terms and conditions as hereinafter set forth, subject to the right of the Contractor to withdraw from said stockpiles any S-2 that may be required by it to fulfill other commitments it may have with the Manhattan District, Corps of Engineers, requiring the use of said S-2. The Government reserves the right to reject any portion or quantity of S-2 which the Contractor may offer.

2. The Government shall take deliveries of such S-2 at the site of said stockpiles at the Contractor's plant at Location E, commencing on the date on which the operation of the Government GU plant at Location E shall start and continuing thereafter at the average rate of approximately 150 L units per day until July 1, 1944, and thereafter at such rate as the Contracting Officer deems necessary for the operation of the Government GU plant and the Contractor's GP plant, both at Location E, in accordance with the terms of Contract No. W-7405 eng-32.

3. The S-2 purchased under Section 1. above shall be processed in accordance with the provisions of Contract No. W-7405 eng-32, as amended, either in the Government GU plant or in the Contractor's GP plant, both on Location E. The residues that may result from such processing shall become the property of the Government. The resultant GU and GP shall be shipped in accordance with directions of the Contracting Officer at the Government's risk and expense to the Government's BJ plant at Location T. Records of weight of all GU and GP shipped from Location E shall be available both to the Government and to the Contractor. This material so shipped shall be processed to BJ and W in the Government's BJ plant at Location T. Payment for the S-2 purchased under Section 1. above shall be made on or before the 25th day of the second month following the receipt of the GU and GP at the BJ plant at Location T on the basis of Sixty Cents (\$.50) per N Unit of D recovered in the form of BJ and

Sixty-Two Cents (\$.62) per N Unit of F recovered in the form of W in accordance with the provisions of Article III below.

.

[fol. 523] IN WITNESS WHEREOF, the parties hereto have executed this contract as of the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ K. D. NICHOLS
K. D. NICHOLS
Col. Corps of Engineers
Contracting Officer

UNITED STATES VANADIUM CORPORATION

By /s/ BLAIR BURWELL KR
Vice President
30 E. 42nd St., New York 17, N. Y.
(Business Address)

WITNESSES:

/s/ KENNETH RUSH
30 E. 42nd St., New York 17, N. Y.
(Address)

/s/ CATHERINE GORDON
30 E. 42nd St., New York 17, N. Y.
(Address)

I J. S. Behringer certify that I am the Secretary of the Corporation named as Contractor herein; that Blair Burwell who signed this contract on behalf of the Contractor was then Vice President of said corporation; that said contract was duly signed for and on behalf of said corporation by authority of its governing body and is within the scope of its corporate powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said corporation this 26th day of June 1944.

/s/ J. S. BEHRINGER

(Corporate
Seal)

• • • • •

[fol. 524]

EXCERPTS FROM DEFENDANT UNION CARBIDE'S
EXHIBIT No. U-X

[Handwritten notations—Classification cancelled 5/24/57—
H. F. Gunlock—AEC Div. of Class'n]

This document consists of 44 page(s)
Number 3 of 7 copies, Series A

Contract No. W-7405 eng-32

Dated: January 25, 1943

NEGOTIATED CONTRACT /s/ KDN

APPROPRIATION: 212/30905
Engineer Service, Army,
1942-1943

FIXED FEE
DESIGN, ENGINEERING,
CONSTRUCTION, EQUIPMENT
AND
OPERATION CONTRACT

CONTRACTOR: UNITED STATES VANADIUM
CORPORATION
NEW YORK, NEW YORK

CONTRACT FOR: Design, Engineering, Construction,
Equipping, and Operation of two
sludge plants for the manufacture of
SOR sludge and of one refining plant
to produce SOQ and SOP oxide.

LOCATION: One sludge plant at Uravan, Colorado, on land owned by the Contractor; one sludge plant at Durango, Colorado, on land leased by Metals Reserve Company and owned by American Smelting and Refining Company; and the refining plant at Grand Junction, Colorado, on land to be provided by the United States Government.

ESTIMATED COST:

TITLE I \$733,730

TITLE III \$ 10,000

TITLE IV Exclusive of fixed fee—
\$110,000 per month.

FIXED FEE FOR TITLE IV: \$6,000.00 per month.

PAYMENT: To be made by Finance Officer, U. S. Army at: U. S. Engineer Office, Manhattan District, New York, N. Y.

The supplies and services to be obtained by this instrument are authorized by, are for the purpose set forth in, and are chargeable to the following procurement authority or authorities, the available balances of which are sufficient to cover the cost of the same:

ENG 31110 P430-10 A-0905-23

This contract is authorized by the following laws:

Title II of the First War Powers Act, 1941, Act of December 18, 1941 (Public Law 354-77th Cong.), and Executive Order No. 9001, dated December 27, 1941.

• • • • •

[fol. 525] IN WITNESS WHEREOF, the parties hereto have executed this contract in triplicate as of the day and year first above written.

THE UNITED STATES OF AMERICA

By /s/ K. D. NICHOLS
K. D. NICHOLS,
Col., Corps of Engineers,
Contracting Officer.

UNITED STATES VANADIUM CORPORATION

By /s/ J. R. VAN FLEET KR
Vice-President

30 East 42nd Street, New York, N. Y.
(Business Address)

Two Witnesses as to
Execution by the
Contractor:

/s/ KENNETH RUSH
30 East 42nd Street
New York, N. Y.
(Address)

/s/ CATHERINE GORDON
30 East 42nd Street
New York, N. Y.
(Address)

• • • • •

[fol. 526]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT No. U-3-G

January 26, 1944

Imperial Paper and Color Corporation
Pigment Color Division
Glens Falls, N. Y.

Attention: Mr. A. F. Brown, General Manager

Gentlemen:

Lead Vanadate

My trip to Washington last week was delayed since I could not make all the appointments I wanted to; and therefore I had to postpone it until yesterday.

I saw the competent gentlemen in Metals Reserve and WPB and they confirmed that the sample of 25 pounds of the South African lead vanadate has been ordered shipped and is most probably in transit.

I further learned that about 900 tons of this material will arrive early in February, and in this connection we would very much like to discuss an idea with you which we believe would be of great importance.

We wonder whether you intend to be in New York one of these days, or early in February so that we may discuss this matter in detail.

Flue Dust

Mr. Johnson was in our office yesterday and offered us a lot of 8 to 9 tons of flue dust of 13.11% V2O5 content.

This would correspond to about 2200 lbs. of V2O5 contained, and it is our opinion that we should buy this lot for you at the price of 45¢ per pound of V2O5 so that you can start your tests on an industrial scale without further delay.

We will shortly send you a description of the process for treating lead vanadate and you will find that the kiln you have and which Mr. Leir saw when you showed him your equipment, can most likely be used for the treatment of lead vanadate and flue dust, interchangeably. This, of course, would make things very simple for you.

We will call you tomorrow in order to discuss this matter and if you agree, we will buy these 8 or 9 tons of flue dust for immediate shipment to you.

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

M. Wolf/he

[fol. 527]

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-J

IMPERIAL PAPER AND COLOR CORPORATION

PIGMENT COLOR DIVISION

GLENS FALLS, N. Y.

December 1, 1947.

Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Dear Mr. Wolf:—

You will remember about ten days ago we told you that we had on hand some Vanadium Oxide that analyzed about 15% metallic iron and 75.7% V_2O_5 . You asked us to send you a sample representing this material, and we are forwarding to you today about one pound of this fused Vanadium Oxide X-521, representing approximately 2600 pounds,

which is batch U-15074. It is our understanding that you will submit this to one of your clients, and if you can obtain an order on it, we will invoice it to you at \$1.10 per pound, it being our understanding that you will offer it to your customer at the present market of \$1.20 per pound.

Awaiting your report, and trusting that we may receive an order for it, we are

Very truly yours,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN

General Manager

Pigment Color Division

AFB:AEG

ANY TECHNICAL INFORMATION FURNISHED IS BASED ON CAREFUL
TESTS AND IS OFFERED FOR YOUR GUIDANCE,
BUT WITHOUT GUARANTEE

[fol. 528]

IMPERIAL PAPER AND COLOR CORPORATION

PIGMENT COLOR DIVISION

GLENS FALLS, N. Y.

December 29, 1947.

- Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

Dear Mr. Wolf:—

About a month ago you will recall we sent you a sample of Fused Vanadium Oxide, representing 2600 pounds, which we had on hand and which we wished to dispose of.

We would like to get some action on this matter, and are writing to ascertain if sufficient time has elapsed for you to get a reaction from your prospective customer, and if so whether or not the reply is favorable. The point is that

we are not trying to high pressure you, but we do want to get some action on this material, and if your customer is not interested, then we have several other leads we wish to pursue.

Awaiting your advices, we are

Very truly yours,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN
General Manager
Pigment Color Division

AFB:AEG

ANY TECHNICAL INFORMATION FURNISHED IS BASED ON CAREFUL
TESTS AND IS OFFERED FOR YOUR GUIDANCE,
BUT WITHOUT GUARANTEE

[fol. 529]

December 31, 1947

Mr. A. F. Brown, General Manager
Pigment Color Division
Imperial Paper and Color Corporation
Glens Falls New York

Re: Fused Vanadium Oxide

Dear Mr. Brown:

We have your letter of December 29th.

Our customers are not too keen on the change-over from Ferro-vanadium to fused Vanadium Oxide although they had used the oxide during the war.

They have not definitely declined either but during this holiday period we cannot do very much useful pushing and we feel that if you have any other leads, we suggest you go ahead.

If our customer should decide eventually to use this material, we will just have to take our chances on its availability.

Kind personal regards for a very Happy New Year to you and your family.

Yours very truly,

Martin Wolf, Manager

MW:nk

[fol. 530]

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-K

IMPERIAL PAPER AND COLOR CORPORATION
PIGMENT COLOR DIVISION
GLENS FALLS, N. Y.

April 9, 1945.

Mr. M. Wolf,
Continental Ore Company,
500 Fifth Avenue,
New York 18, N. Y.

• Dear Mr. Wolf:—

Replying to your letter of April 6th regarding a ton of V in the form of Fused Vanadium Oxide, we are sorry to tell you that we do not have any of this material on hand at the present time. We have been producing small quantities, but we made a shipment to Allegheny Ludlum a few days ago, and it will be six to eight weeks before we have any more available, because our labor situation is so tight, that processing of anything which we can defer is being handled on that basis at the present time, as we are shorter of men now than we have been at any time since the war started.

Regretting that this is the condition, we are

Very truly yours,

IMPERIAL PAPER AND COLOR CORPORATION

/s/ A. F. BROWN
General Manager
Pigment Color Division

AFB:AEG

(Army and Navy Flag)

ANY TECHNICAL INFORMATION FURNISHED IS BASED ON CAREFUL
TESTS AND IS OFFERED FOR YOUR GUIDANCE,
BUT WITHOUT GUARANTEE

[fol. 531]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-M

January 29, 1944

Imperial Paper and Color Corp.
Pigment Color Division
Glens Falls, N. Y.

Attention: Mr. A. F. Brown, General Manager

Gentlemen:

Re: Lead Vanadium from South Africa

We have your letter of January 21 and wish to say that the figures on Page 635 of the Minerals Yearbook, 1940, Revision of 1939, refer to metric tons of metallic vanadium (V) contained.

Therefore, total shipments from Southwest Africa, listed as being 514 metric tons V contained, correspond to 1,132,856 pounds of V contained, which is roughly 95,000 pounds of metallic V per month.

The Otavi material alone at the present rate of production amounts to:

200 tons per month of 9% V₂O₅ average,
equaling 36,000 lbs. V₂O₅ or 20,000 lbs. of V per month.

There are other sources in South Africa, as well in Northern Rhodesia, so that this origin alone should be a safe basis for operations.

This does not take into account any flue dust to be obtained locally here, nor any other vanadium-bearing materials from South America, particularly Peru and from Central America, particularly Mexico.

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

M. Wolf/hc

[fol. 532]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT No. U-3-N

December 4, 1944

Mr. A. F. Brown, General Manager
Imperial Paper & Color Corp.
Pigment Color Division
Glens Falls, N. Y.

CONFIDENTIAL

Re: Metals Reserve's Stock
of Lead Vanadate

Dear Mr. Brown:

A friend of ours at Metals Reserve suggested that since we cannot make further purchases of the Otavi lead vanadate at the present time, we should write something to them in order to keep this matter open in their files. You know that we are urging them not to sell it to any other parties, but to keep it until you are ready to proceed.

Such a letter, therefore, should point out that your process for recovering vanadium pentoxide has been perfected and that you are eager to go ahead. However, things have been held up because of the present manpower shortage, and as soon as there is a change in the present labor situation, you intend to proceed with the vanadium production on a substantial scale.

Of course, this letter should not mention anything about Metals Reserve, but should just be a spontaneous letter to us.

May we hear from you?

Very truly yours,

CONTINENTAL ORE COMPANY

Manager

MWolf
SG

[fol. 533]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-3-R

WILLIAM A. BAEHR ORGANIZATION, INC.
231 SOUTH LA SALLE STREET
CHICAGO

A. C. WINTERS, PRESIDENT
WAYNE P. HENDRICKS, VICE PRESIDENT
WILLIAM B. BAEHR, SEC'Y-TREASURER

May 11th, 1943

Mr. Henry J. Leir
Continental Ore Company
500 Fifth Ave.
New York, N. Y.

Dear Mr. Leir:

We have for acknowledgment and thanks your letter of May 5th, together with copies of letter to you from Wade, Curran and Company, Farmington, New Mexico and your reply to them regarding carnotite concentrates which they offer for sale. We are quite familiar with this situation as we have every reason to believe that some of this ore came from claims on which we believe we hold title. This, however, was disputed by the gentleman whom they mention as recently having died, and the matter is now in the hands of the attorneys.

In the writer's phone conversation with Mr. Wolff on April 12th, he told you that owing to labor shortage that the operations of our mill had stopped. We first lost our chemist and then 5 of the key men and we have not since been able to replace any of these men. We are sorry to have to tell you that the mill has not been operated since then and at the present we cannot hazard any guess as to when operations will be resumed.

We have retained all of the men and are using them in mining and development work and we are continuing to mine ore which is being sold as raw ore to the Metal Reserves Corporation.

We shall advise you as soon as we see any change in the present situation.

Very truly yours,

/s/ W. P. HENDRICKS

WPH:CF

[fol. 534]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT No. U-3-T

December 8, 1943

North Continent Mines ✓
Metals Reserve—Vanadium

Called Mr. Hendricks, who apologized for not having answered our letter of November 20 because he was out of town.

At present there is no change contemplated with regard to their operations of North Continent Mines.

They are selling their vanadium ore to Metals Reserve via Vanadium Corporation of America. They realize more for the ore than they would if they made vanadic acid. Incidentally, they have no men to operate the mill even if they wanted.

He asked us if we are still in the market for vanadic acid and I told him that we are. I told him further that the price is \$1.10, unchanged, and he remarked that he is much better off if he sells the ore.

He does not know how much longer his contract with Metals Reserve runs.

He promised to let us know whenever conditions change particularly with regard to a possible reorganization of the entire concern in case it would affect North Continent Mines proper.

mw/sk

[fol. 535]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-C

METALS RESERVE COMPANY
WASHINGTON, D. C.

March 5, 1943

Mr. Henry J. Leir
Continental Ore Company
500 Fifth Avenue
New York

Dear Mr. Leir:

Receipt is acknowledged of your letter of March 1, 1943, regarding an allocation by the War Production Board of 20,000 pounds of contained vanadium in vanadium concentrates. You request information regarding when you may expect delivery.

We regret to inform you that although we have received the allocation, because of previous commitments we have no available material with which to fill your order, and do not anticipate having any in the near future. We have discussed the matter with the War Production Board, and you will probably receive a communication from that Agency.

Very truly yours,

/s/ DeWitt C. Schieck

DeWitt C. Schieck
Assistant Vice President

(Uniform Domestic Straight Bill of Lading, adopted by Carriers in Official, Southern, Western and Illinois Classification territories, March 15, 1922, as amended August 1, 1928, and June 15, 1941.)

UNIFORM STRAIGHT BILL OF LADING—ORIGINAL—NOT NEGOTIABLE

(Prescribed by the Interstate Commerce Commission)

RECEIVED, subject to the classification and tariffs in effect on the date of the issue of this Bill of Lading:

The property described herein, to appear good order, except as noted (inmate and condition of package necessary, correct, arranged, and entered as indicated below, which said carrier (the word carrier being understood throughout this document) or its agent or representative in possession of the property under the contract, agrees to carry to the usual place of delivery as said destination, if so its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over a, or any portion of said route to destination, and as to each party as any time indicated on all or any of said property that every service to be performed hereunder shall be subject to all the conditions and prohibitions by law, whether present or future, for the protection of the carrier, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for transit and his service.

From **ELECTRO METALLURGICAL COMPANY** At Alloy, W. Va.

Agent's
No. _____

By **PITTSBURGH WHEELING**

Company

DATE SHIPPED **1928 12 12**

19

CUSTOMER'S ORDER NO.

SEAL NOS.

OUR ORDER NO.

24092

Consigned
to and
Destination

CONTINENTAL ORE CORPORATION
C/O OLIMAX POLYCONDENSED CO. PAINT
LANGELOTH, PENNA.

Mall or street address—For purposes
of notification only

Route **TRUCK**

Car Initial
Car No.

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignee, the consignee shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignee)

If charges are to be prepaid, write or stamp here, "To be Prepaid."

PREPAID

Received \$ _____
to apply in prepayment of the charges on the property described herein.

Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges advanced

"If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is 'carrier's or shipper's weight.'"
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby _____
specifically stated by the shipper to be not exceeding _____ per _____

ELECTRO METALLURGICAL COMPANY, Shipper, Per _____

Permanent post-office address of shipper, Alloy, W. Va.

UN-432-A 11-42 © 23476

Per

Agent

[fol. 536]

WAR PRODUCTION BOARD

WASHINGTON, D. C.

March 5, 1943

IN REPLY REFER TO:

Steel Division

Room 1521

Tempo R

Mr. Martin Wolf
Continental Ore Corporation
500 Fifth Avenue
New York, New York

Dear Mr. Wolf:

We have been notified by Metals Reserve Company that the total production of the Durango Plant has already been contracted for, and consequently, there will be no available material for allocation from that plant.

On your last visit to Washington, we warned you of the possibility of this, and while we have made an allocation from Metals Reserve to Continental Ore, you will understand from the above that this allocation cannot be filled.

Very truly yours,

/s/ S. C. STIMMEL

Ferro-Alloys Branch
S. C. Stimmel

[fol. 537]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-D

CONTINENTAL ORE COMPANY
560 FIFTH AVENUE
NEW YORK

[Stamp—Received at New York—April 12, 1943—Room
1719]

April 9, 1943

Electro Metallurgical Co.
30 East 42 Street
New York, N. Y.

Gentlemen:

Re: Vanadium Pentoxide

We refer to the allocation made out by the WPB under
date of April 7 in our favor in the amount of

10,000 lbs. of metallic V contained
(17,843 lbs. contained V2O5)
in Vanadium Concentrates

We would very much appreciate your kindly informing us
when this material is expected to be ready for shipment so
that we may give you our shipping instructions.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ H. J. LEIR
Henry J. Leir

hjl/sk

[Handwritten notation—Lack. 4-2220]

[fol. 538]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-E

[Handwritten notations—R—\ —HMR]

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK

April 14, 1943

Electro Metallurgical Sales Corp.

30 East 42 Street

New York, N. Y.

Attention: Mr. T. F. O'Heir

Gentlemen:

Re: 10,000 lbs. of V contained
in Vanadium Concentrates

We refer to our telephone conversation of this afternoon and duly noted that the above quantity which was allocated to us by the WPB will be ready for shipment within a few days.

Please ship this material to:

Continental Ore Company
c/o Climax Molybdenum Co.
Langeloth, Pa.

Since this material originates in Columbiana, Ohio, we kindly ask you to ship by truck which insures the speediest delivery.

Our insurance policy requires that for truck shipments the value is to be declared as being minimum \$50 per shipping package (bag or drum) and we would appreciate your mentioning this in the bill of lading.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ H. J. LEIR
Henry J. Leir

hjl/sk

[fol. 539]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-F

April 29, 1943

Electromet
Climax
Metals Reserve

Spoke to Mr. O'Heir of Electromet. He believes that they are shipping today 5,700 lbs. of V contained by truck from Columbiana to Langeloth. The balance should also go out today from their plant at Alloy (? W. Va. ?).

They had some trouble and could not get out the entire quantity as they had intended earlier this month.

I then spoke to Mr. Donald R. Harrison, Works Manager.

He believes that the material is about $\frac{1}{4}$ " in size. They have grinding facilities but these are taxed to capacity at the present time. However, he would look into this matter and see whether they could grind our material in the future to 10 mesh.

mw/sk

[fol. 540]

April 29, 1943

Mr. Donald R. Harrison, Works Manager
Electro Metallurgical Sales Co.
30 East 42 Street
New York, N. Y.

Dear Mr. Harrison:

Re: Vanadium Pentoxide

We refer to our telephone conversation of this morning and wonder whether, for future shipments to us, you would be in a position to grind the vanadium concentrates to about 10 mesh size with not too many fines (below 80 mesh).

We would very much appreciate your looking into this matter and letting us have your news at your earliest convenience.

Thank you for your cooperation.

Very truly yours

CONTINENTAL ORE COMPANY

Manager

M. Wolf/sk

✓ Voucher Number 2-4-1

AM 186.

DIVISION ACCTG. OFFICE
30-20 THOMSON AVENUE
LONG ISLAND CITY, N. Y.

ELECTRO METALLURGICAL SALES CORPORATION

UNIT OF UNION CARBIDE AND CARBON CORPORATION

USE

Customers

Order No. & Date
Requisition No.
Contract No.
Shipped to
Destination

Invoice Date 4/30/43
Invoice No. 24892
Shipper's Lot No. SEE BELOW

Column reserved for use of customer
P. A. Invoice No.
Voucher No.

SAME, C/O CLIMAX MOLYBDENUM CO
LANCELOTH, PA.

Terms:
Net Cash
30 days
following
date of
invoice in
New York
Exchange

CONTINENTAL ORE CORP.
500 FIFTH AVE.
NEW YORK, N.Y.

CHECKED
With Order
F. O. B. Point
Price
Calculations
Transportation
Trans. Chgd. Back

Date Shipped 4/30/43
Car No. and Init.
How Shipped and Route

From ALLOY, W. VA.

F. O. B. Cars Niagara Falls, N. Y. Basis
Freight charges allowed to

PITTSBURGH WHEELING TRUCK

DEST

"ELECTRO-CET" BRAND VANADIUM OXIDE FUSED

PRICE

AMOUNT-DOLLARS

GROSS

TARE

NET

SIZE

GRADE

TESTING

POUNDS CTD.

LOT#	BAGS	GROSS	TARE	NET	V205	#CTD	V205
1208	10	1170	20	1150	88.00	1012.00	✓
1205	100	11700	200	11500	87.00	10005.00	✓
1207	68	7956	136	7820	88.00	6881.60	✓
					17898.60	✓	

THE PRICES SPECIFIED HEREIN ARE NOT, TO OUR KNOWLEDGE,
IN EXCESS OF THOSE THEN IN EFFECT BY THE ANTI-TRUST ACT
REGULATION OF THE OFFICE OF PRICE ADMINISTRATION

List of weights and analysis attached. Freight prepaid to destination.

All goods covered by this invoice were produced in compliance with the FAIR LABOR STANDARDS ACT of 1938.

Above Materials received 194 and found satisfactory.
Charge Account Approved

(Signed) (Title)

Approved

[fol. 541]
IN UNITED STATES DISTRICT COURT
DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-G
541

[fol. 543]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-I

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

[Stamp—Received at New York—May 12, 1943—Room
1719]

May 11, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, New York

Attention: Mr. T. F. O'Heir

Gentlemen:

Re: Your invoice #24892, April 30

We refer to your above invoice covering shipment of
vanadium oxide and to our telephone conversation of last
week.

Please arrange to send us a new invoice made out on the
basis of \$1.10 per lb. or send us your credit memorandum
for the difference of 5¢ per lb. so that we can settle this
invoice. •

Thank you for your kind attention to the above.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ H. J. LEIR
Henry J. Leir

hjl/sk

[fol. 544]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-J

[Letterhead of Electro Metallurgical Sales Corporation,
New York, N. Y.]

May 18, 1943

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Gentlemen:

Re: Invoice No. 24892
April 30, 1943.

This replies to your letter of May 11th on the subject of the above invoice covering a shipment of vanadium oxide.

The price of \$1.15 per pound of contained vanadium oxide is our regular price to any one for spot purchases of vanadium pentoxide in quantities of 500 pounds or more.

We trust that this will answer your question concerning the price included in the above mentioned invoice and that it will be passed for payment as rendered.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By: /s/ W. E. REMMERS

W.E.Remmers:JC

[fol. 545]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-K

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK

[Stamp—Received—At New York—May 20 1943—Room
1719]

May 19, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Attention: Mr. W. E. Remmers

Gentlemen:

Re: Invoice No. 24892/April 30, 1943

We received your letter of May 18 and wish to say that the WPB, Washington, made out the allocation for 10,000 lbs. of V contained in vanadium pentoxide in your name only because there was no material available at the Durango plant of the Metals Reserve from where we had received material previously.

All our material from Metals Reserve was invoiced at \$1.10 per lb. of V205 contained, delivered our plant, and we had no reason to expect that we would be charged any other price.

Furthermore, these allocations will be continued either from Durango or from you and we believe that under these circumstances you will charge us the same price that we had agreed to pay to Metals Reserve since this was our definite understanding with them.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

M. Wolf/sk

[fol. 546]

CONTINENTAL ORE COMPANY
500 FIFTH AVENUE
NEW YORK

May 19, 1943

Mr. H. M. Rich
Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Dear Mr. Rich:

Re: 10,000 lbs. of V contained in
Vanadium Pentoxide/May Allocation

We refer to our telephone conversation of May 17 and are pleased to give you below the following order in conformity with the allocation received from the WPB, Washington:

MERCHANDISE	Vanadium Pentoxide—min. 85% V2O5 containing no detrimental impurities
SIZE	In small flakes
QUANTITY	10,000 lbs. of V contained in Vanadium Pentoxide
PRICE	\$1.10 per lb. of V2O5 contained, de- livered Langeloth, Pa.
SHIPMENT	Upon our release, probably around the end of May
TERMS	Net cash 30 days

We will give you our release in time for you to prepare this shipment.

Thank you for your kind attention.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

M. Wolf/sk

[fol. 547]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-L

May 20, 1943

Continental Ore Company
500 Fifth Avenue
New York, N. Y.

Attention: Mr. M. Wolf

Gentlemen:

This refers to your letter of May 19th on the subject of invoice #24892 dated April 30, 1943.

The price of \$1.15 specified on the invoice is that which applies to all spot sales of vanadium oxide in quantities of 500 pounds or more made to any one. This price has been established for a number of years and we do not believe that we would be justified in making any special concession in the nature of a price reduction for such material.

We trust that with this explanation you will authorize payment of the invoice as rendered.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By:

W.E. Remmers:JC

[fol. 548]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-M

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK

[Handwritten notation—W.E.R.—This]

May 21, 1943

Electro Metallurgical Sales Corp.

30 East 42 Street

New York, N. Y.

Attention: Mr. Walter E. Remmers

Gentlemen:

Re: Invoice #24892/April 30, 1943

We received your letter of May 20 and can only repeat what we told you in ours of May 19 regarding the price which we expected to pay in view of our previous dealings with Metals Reserve.

We never did receive a contract from you and therefore had no reason to assume that your price would be any different from that which we paid for the previous material shipped through you from Metal Reserve's stocks.

However, we believe that we can overcome this difficulty in price resulting from the difference between spot and contract sales. We are perfectly willing to sign a contract with you for our requirements until the end of the year. At present, these requirements are estimated to amount to about 10 000 lbs. of V contained in pentoxide per month. This contract, at the usual price of \$1.10 per lb. of V contained delivered, could then be considered as applying to the lot shipped in April.

We hope that you can cooperate with us along these lines and look forward to hearing from you.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF

Manager

M. Wolf/sk

[Stamp—Received at New York—May 22 1943—Room 1719]

[fol. 549]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-N

[Letterhead of Electro Metallurgical Sales Corporation,
New York, N. Y.]

May 25, 1943

Continental Ore Company
500 Fifth Avenue
New York, N.Y.

Attention—Mr. M. Wolf

Gentlemen:

We acknowledge receipt of your letter of May 19 which constitutes an order covering 10,000 lbs. of vanadium contained in Vanadium Pentoxide in accordance with the allocation made to you by the War Production Board for May shipment.

We note that the price shown on your order is \$1.10 per pound of V_2O_5 contained in the compound. Until such time as the question of price has been decided, we will be unable to accept your order at this price since the regular market price of this material is \$1.15 per pound of V_2O_5 contained in the compound.

We will hold your order in our files until such time as the question of price has been determined and until an official release is obtained from you. In the meantime, we wish to thank you for having favored us with this business.

Yours very truly,

ELECTRO METALLURGICAL SALES CORPORATION

/s/ HERBERT M. RICH
District Manager

H.M.Rich/G

[fol. 550]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-O

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK

May 26, 1943

[Handwritten names illegible]

Electro Metallurgical Corp.
Division Accounting Office
30-20 Thompson Street
Long Island City, N. Y.

Gentlemen:

Re: Your invoice #24892 dated April 30, 1943
Fused Vanadium Oxide

Please be informed that we have instructed The New York
Trust Company to send you their check in the amount of

\$19,688.46? OK @ \$1.10 lb.

against your above-named invoice.

Please note that this amount represents 17898.6 lbs. V205
at \$1.10 whereas your invoice is based on a rate of \$1.15.

We are in correspondence with Mr. W. E. Remmers re-
garding this difference.

Very truly yours

CONTINENTAL ORE COMPANY

/s/ HENRY J. LEIR

Henry J. Leir

hjl/sk

Italicized material handwritten.

[fol. 531]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT No. U-4-P

CONTINENTAL ORE COMPANY

500 FIFTH AVENUE

NEW YORK

[Stamp—Received—At New York—May 28 1943—Room
1719]

May 27, 1943

Electro Metallurgical Sales Corp.
30 East 42 Street
New York, N. Y.

Attention: Mr. W. E. Remmers

Gentlemen:

Re: Fused Vanadium Oxide

We refer to our previous correspondence regarding the price of the lot you shipped to us against WPB's April allocation.

If it is difficult for you to apply the price of \$1.10 because no contract has been signed by either party, we feel that the only thing to do is to put at your disposal a like amount of fused vanadium oxide so that the entire transaction can be written off. In other words, we would replace the material shipped to us. This can be done by putting at your disposal a like amount out of the production of Nisley & Wilson for which we hold a contract with Metals Reserve at \$1.10 and which has been allocated to us.

May we hear from you?

Very truly yours

CONTINENTAL ORE COMPANY

/s/ MARTIN WOLF
Manager

[fol. 552]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-4-Q

[Letterhead of Electro Metallurgical Sales Corporation,
New York, N. Y.]

June 1, 1943.

Continental Ore Company

500 Fifth Avenue

New York, N. Y.

Attention: Mr. M. Wolf

Gentlemen:

We have your letter of May 27th as well as one written on May 26th by Mr. Henry J. Leir.

Although you propose to make a replacing shipment of fused vanadium oxide, Mr. Leir has advised us by way of our Long Island City Accounting Office that you are remitting on the basis of \$1.10 per pound contained. In order to close the file on this subject, we are accepting your check representing payment for 17,898.6 pounds of vanadium oxide at \$1.10 per pound as payment in full.

We wish to point out, however, that this adjustment in price is for the purpose of closing our present discussion and in no way establishes any precedent so far as future business is concerned. As we have indicated in our earlier correspondence, the established price on spot sales in the quantities under discussion is \$1.15 per pound.

We are issuing a credit memorandum to adjust the original invoice from \$1.15 to \$1.10 per pound.

Very truly yours,

ELECTRO METALLURGICAL SALES CORPORATION

By: /s/ W. E. REMMERS

W.E.Remmers:JC

[fol. 553]

IN UNITED STATES DISTRICT COURT
 DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-5-G

Defendant Union Carbide's Exhibit No. U-5-G

For use in connection with Uniform Domestic Straight Bill of Lading adopted by Carriers in Official, Southern, Western and Illinois Classification territories, March 15, 1922, as amended August 1, 1930 and June 15, 1941 (Prescribed by the Interstate Commerce Commission.)

THIS MEMORANDUM is acknowledgment that a Bill of Lading has been issued and is not the original Bill of Lading nor a copy or RECEIVED, subject to the classifications and tariffs covering the proper carrier of the property and is intended for filing or record, as the Original Bill of Lading.

The property described below, is against good order, except as noted (and conditions of contents of packages unless stated, engaged, and destined as before, which said company (the word company being understood throughout the contract as meaning any person or corporation in possession of the property) agrees to carry to its usual place of delivery or such destination, if on its own road or its own water line, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

From ELECTRO METALLURGICAL COMPANY

Agent's
No. _____

By **NYC** Company **DATE SHIPPED APRIL 24 19 46**
 CUSTOMERS ORDER NO. SEAL NOS. OUR ORDER NO.

ND 7460

Consigned
to and
Destination

CONTINENTAL ORE COMPANY
NEW YORK, N.Y.

Mail or street address—For purposes
of notification only.

Route NOTIFY: CONSIGNEE - 500 5TH AVE.
NEW YORK CITY - PHONE PA 6-6634

Car Initial **IC**
Car No. **14561**

Number Package	DESCRIPTION, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Subject to Corr.)	CLASS or RATE	CHECK
10 DRUMS	ORE N.O.I.B.N.	224#	.60	

WE CERTIFY THAT THIS IS AN EXACT COPY OF
THE ORIGINAL BILL OF LADING.

E. J. McCarthy
ELECTRO METALLURGICAL DIV. UNION
CARBIDE & CARBON CORPORATION

†This Shipment is Correctly Described

Correct Weight is _____ lbs.
Subject to Verification by the TRUNK LINE
FREIGHT INSPECTION BUREAU.
According to Agreement No. 195
ELECTRO METALLURGICAL CO.

Per _____ Shipper

†Shipper's Imprint in lieu of stamp, not a part of
bill of lading adopted by Carriers.

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor)

If charges are to be prepaid, write or stamp here, "To be Prepaid." **PREPAID**

1.38

Received \$ _____
to apply in prepayment of the charges on the property described herein.

Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges advanced

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight."
NOTE—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding **5 CENTS** per **POUND**

ELECTRO METALLURGICAL COMPANY, Shipper, Per

Permanent post-office address of shipper.

UN-434-A 10-46 23089 © Dittoforms

Per _____ Agent

352

[fol. 554]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT NO. U-5-1

November 20, 1943

North Continent Mines, Inc.
231 S. La Salle Street
Chicago, Illinois

Attention: Mr. W. P. Hendricks

Gentlemen:

We read in the papers about the dissolution of the North Continent Utilities Corporation.

We would appreciate it very much indeed if you could tell us what the plans are with regard to your own firm; in other words, whether we can expect you to remain independent and sooner or later again become one of our suppliers.

Any information you can give us will, of course, be treated confidentially.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/he

[fol. 555]

February 18, 1944

Mr. W. P. Hendricks
North Continent Mines, Inc.
231 S. La Salle Street
Chicago, Illinois

Dear Mr. Hendricks:

I will arrive in Chicago on Monday, February 28, and will leave in the afternoon as usual for the west.

I will come to your office and hope to have the pleasure of seeing you for a few moments.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/sk

[fol. 556]

June 2, 1944.

North Continent Mines, Inc.
231 South La Salle Street
Chicago, Illinois.

Att: Mr. W. P. Hendricks

Re: Vanadium

Gentlemen:

This is to refer to our last conversation, at which time you informed us that you did not anticipate re-opening your mill.

As we have not heard from you since, we assume that you are still shipping crude ore.

The pleasant relationship which we always maintained with you prompts us to submit the following:

We would not like to see your mines and mill pass into other hands, which might perhaps be competitors of ours in the vanadium field.

Some conversations which we had with some friends of ours lead us to think that there is a possibility of concluding a deal with you regarding your property whenever

you want to dispose of it. Substantial down payments would be no obstacle, and should you wish to maintain a share in the business rather than sell outright, this too, would be acceptable.

Will you be good enough to tell us whether you expect to re-open the mill in the not too distant future, or whether you would like to make some sort of a deal, in which case we would appreciate it if you would let us know your terms.

We look forward to hearing from you.

Very truly yours,

CONTINENTAL ORE COMPANY

Henry J. Leir

hjl/se

[fol. 557]

IN UNITED STATES DISTRICT COURT

DEFENDANT UNION CARBIDE'S EXHIBIT No. U-5-L

August 28, 1939.

R. Poliakoff, M. E.,
113 W. 42nd Street,
New York, N. Y.

Dear Mr. Poliakoff,

We hereby confirm for regularity's sake that we asked you to buy for our account:

10.000 lbs. of fused Manadic Acid for shipment:

5.000 lbs. end of this week / early next week.

5.000 lbs. one week later.

Total 10.000 lbs., other conditions exactly as last.

Please arrange shipment in steel drums of the larger type, containing about 450 lbs. net.

Yours very truly,

CONTINENTAL ORE CORPORATION.

Paul M. Hirschland.

PMH/LL.

[fol. 558]

COPY

July 28, 1939

R. Poliakoff, M. E.
113 West 42nd Street
New York, N. Y.

Subject: Vanadic Acid

Gentlemen:

We are pleased to acknowledge your letter of July 26th confirming telephone order for 6,000 pounds of Vanadic Acid.

As advised you, we are changing the "DELIVERY" to read—"Freight allowed to Philadelphia", as we understand this is the point to which the material will move, and will delete from your letter the reference which you made to freight allowance.

We wish to thank you for your order and will await your shipping instructions.

Very truly yours,

ELECTRO METALLURGICAL SALES CORP.

(signed) By: T. F. O'HEIR

[fol. 559]

COPY

[Handwritten notation—Poliakoff]

July 26, 1939

Electro Metallurgical Sales Corp.
30 East 42nd St.—Room 1719
New York, N. Y.

Att: Mr. T. F. O'Heir

Gentlemen:

Subj: VANADIC ACID

This is to confirm the telephonic order which I gave you
early this afternoon as follows:

Merchandise: Vanadic Acid (fused V_2O_5 contain-
ing a minimum of 85% V_2O_5)

Quantity: 6000 lbs.

Packing: In drums of about 180 lbs. each

Price: \$1.10 (One Dollar 10¢) per 1 lb. of
 V_2O_5

Delivery: The above price to be F.O.B. Niagara
Falls, N. Y. with freight allowed in
the amount equal to freight trans-
portation charges from Niagara Falls,
N. Y. to St. Louis, Mo.

Time of shipment: Immediate delivery

Payment: Upon presentation of shipping docu-
ments

I await your confirmation and shall let you have my ship-
ping instructions by the next mail.

In the meantime, I beg to remain,

Yours very truly,

(Signed) R. POLIAKOFF

RP:FI

✓ Defendant Hirschland's Exhibit No. 16-57

NEW YORK September 16, 1940

M. Associated Metals & Minerals Corporation

49 Rector Street, New York City

5 704

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINOX

CODES:
A. B. C. 8TH EDITION
ACME & SUPPLY.

TELEPHONE:
LACKAWANNA 4-2221

5.442	lbs Fused Vanadic Acid	5.442.00 lbs	
	less moisture 0.08%	4.35 "	
	dry net	5.437.65 "	
containing 91.34% V2O5		= 4.966.75 lbs V2O5	\$1.25 per lb \$6.208.44

Packing: Material is packed in 19 Iron Drums

Delivery: Ex Warehouse New York

Payment: Net cash against documents, including
Ledoux & Co.'s certificates of sampling,
weighing and analysis.

Weights: Gross 6036 lbs
Tare 594 lbs
Net 5442 lbs

Continental Ore Corporation

Paul M. Hirschland

[fol. 560]

IN UNITED STATES DISTRICT COURT
UNION CARBIDE'S EXHIBIT No. U-5-N

✓

NEW YORK, September 30, 1940

Mercentile Metal & Ore Corporation

67 Broadstreet, New York City

S 715

CONTINENTAL ORE CORPORATION

300 FIFTH AVENUE

CABLE ADDRESS:
LATINOREZ

CODES:
A. B. C. 2TH EDITION
ACME & SUPPLY

TELEPHONE:
LACKAWANNA 4-2221

4.993	lbs Fused Vanadic Acid	4.993.00 lbs
	less moisture 0.27%	<u>13.48 "</u>
	Dry net	4.979.52 "

containing 86.13% V2O5 = 4.288.86 lbs V2O5 @ \$1.25 per lb. \$5.361.08

Packing: Material is packed in 17 Iron Drums

Delivery: Ex Warehouse New York

Payment: Net cash against Delivery Order and
Ledoux & Co.'s certificates of
sampling, weighing and analysis.

Weights:	Gross	5529 lbs
	Tare	536 lbs
	Net	4993 lbs

Continental Ore Corporation

Paul M. Hirschland
Treasurer

NEW YORK, October 4th, 1940

Mercantile Metal & Ore Corp.

67 Broadstreet, New York City

S. 749

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 6TH EDITION
ACME & SUPPLY.

TELEPHONE:
LACKAWANNA 4-2221

5,478	lbs Gas-Dried Vanadic Acid	5478.00 lbs
	less moisture 2.47%	<u>135.31 lbs</u>
	Dry net	5342.69 lbs

containing 85.45% V2O5 = 4565.33 lbs V2O5 @ 21.34¢ per lb \$96.140.37

Packing: Material is packed in 54 Iron Drums

Delivery: Ex warehouse New York

Payment: Not cash against Delivery Order
on basis of Ledoux's certificates of
sampling, weighing & analysis.

Weights:	Gross	7054 lbs
	Tare	1576 lbs
	Net	5478 lbs

Continental Ore Corporation

Paul M. Hirschland
Treasurer

[101.562]

October 30, 1940

Overseas Metal & Ore Corporation

CREDIT MEMORANDUM

Following our correspondence of yesterday we credit you
as follows:

On 4,235.66 lbs V205 2(two) cents per lb. \$84.71

You will deduct this amount from
our invoice S 761.

Continental Ore Corporation

Paul L. Mirschland
Treasurer

NEW YORK October 29, 1940

M. Overseas Metal & Ore Corporation

29. Broadway, New York City

S 761

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 8TH EDITION
ACME & SUPPLY.

Contract of August 19, 1940

TELEPHONE:
LACKAWANNA 4-2221

5.082 lbs Fused Vanadic Acid 5.082.00 lbs
less moisture 0.47% 23.89 lbs
Dry net 5.058.11 lbs

containing 83.74% V2O5 = 4.235.66 lbs V2O5 @ \$1.25 per lb. 5.294.58

Packing: Material is packed in 13 iron drums

Delivery: Ex Warehouse New York

Payment: Net cash against Delivery Order on
basis of Ledoux's certificates of
sampling, weighing & analysis.

Weights: Gross 5647 lbs
Tare 565 lbs
Net 5082 lbs

Continental Ore Corporation

Paul E. Hirschland
Insurance

[Vol. 564]

October 30, 1940

Associated Metals & Minerals Corporation

CREDIT NOTE

Following our correspondence of yesterday we have credited you
as follows:

On 4,133.83 lbs V205 2(two) cents per lb. \$82.68

You will deduct this amount from our Invoice S 774

Continental Ore Corporation

Paul F. Hirschland
Treasurer

NEW YORK, October 29, 1940

M. Associated Metals & Minerals Corporation

40 Rector Street, New York City

S 77A

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. S. C. 8TH EDITION
ACME & SUPPLY

Contract 5000 lbs Gas-Dried
Vanadic Acid, October 5, 1940

TELEPHONE:
LACKAWANNA 4-222

5.018	lbs Gas-Dried Vanadic Acid	5.018.00 lbs	
	less moisture 1.87%	<u>93.84 lbs</u>	
	Dry net	4.924.16 lbs	
	containing 83.95% V2O5 = 4.133.83 lbs V2O5 @ \$1.37½ per lb		<u>\$5.684.02</u>

Packing: Material is packed in 28 iron drums

Delivery: Ex warehouse New York

Payment: Net cash against Delivery Order on
basis of Ledoux's certificates of
sampling, weighing & analysis.

Weights: Gross 6396 lbs
Tare 1378 lbs
Net 5018 lbs

Continental Ore Corporation

Paul F. Hirschland,
Treasurer

[fol. 566]

NEW YORK, November 19, 1940

Mercantile Metal & Ore Corp.

8814

67 Broad Street, New York City

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

Contract of September 19, 1940

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 6TH EDITION
ACME & SUPPLY.

TELEPHONE:
LACKAWANNA 4-1220

46 drums	Gas-Dried Vanadic Acid	5.107 lbs			
	less moisture 2.50%	127.675 lbs			
	Dry net	4.979.325 lbs			
	containing 85.13% V2O5 - 4.238,90 lbs V2O5 @		\$1.22		
	per lb V2O5 contained				\$5.171.46
					<hr/>
	Packing: Material is packed in 46 Iron Drums				
	Delivery: Ex warehouse New York				
	Payment: Net cash against Delivery Order				
	on basis of Ledoux' certificates of				
	sampling, weighing & analysis				
	Weights: Gross 6622 lbs				
	Tare 1515 "				
	Net 5107 "				

NEW YORK, December 6, 1940

Stauffer Chemical Company

5827

636 California St. San Francisco, Calif.

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

Your order No 13271

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 8TH EDITION
ACME & SUPPLY.

TELEPHONE:
LACKAWANNA 4-2220

50 lbs Vanadium Pentoxide containing 84.82% V₂O₅
= 42.41 lbs
at \$1.10 per pound of V₂O₅ contained
f.o.b. New York

\$48.85

~~*****~~

Terms: Net cash 30 days

Delivered to Wells Fargo & Co.
c/o Morgan Line at New York
c/o Southern Pacific Co. at
San Francisco

[fol. 568]

NEW YORK, December 19, 19 40Mercantile Metal & Ore Corporation67 Broad Street New York City

5534

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUECABLE ADDRESS:
LATIMORE

Contract of September 17, 1940

CODES:
A. S. C. 6TH EDITION
ACME & SUPPLY.TELEPHONE:
LACKAWANNA 4-2220

6 drums

Pure Vanadic Acid	2,600 lbs
less moisture 0.04%	<u>1.04</u>
Dry net	2598.96 lbs

containing 85.56% V ₂ O ₅	2223,67 lbs V ₂ O ₅	@	\$1.25 per lb	<u>\$2,779.99</u>
--	---	---	---------------	-------------------

Packing: Material is packed in 6 iron drums

Delivery: Ex warehouse New York

Payment: Net cash against Delivery order on basis
of Ledoux' certificates of sampling, weighing
and analysis.

Weights:	Gross	2929 lbs
	Tare	329 "
	Net	2600 "

NEW YORK July 19 1941

Stauffer Chemical Company
836 California Street
San Francisco, Calif.

S1004

CONTINENTAL ORE CORPORATION

500 FIFTH AVENUE

CABLE ADDRESS:
LATINORE

CODES:
A. B. C. 8TH EDITION
ACME & SUPPLY.

Your order No. 25459
Req. No. A.C.M.
dated June 20, 1941

TELEPHONE:
LACKAWANNA 4-2220

43 bags
marked
Continental
Ore 1-43

Air Dried Vanadic Acid:

Gross weight.....	2,324 pounds
Tare	124 "
Net weight	2,200 "
Moisture 1.48%	32.58
Net dry weight...	2,167.44 pounds

containing 85.74% V2O5 ... 1,858.35# V2O5 @ \$1.30
per pound of V2O5, f.o.b. New York

\$2,415.87

1/2 of Ledoux' charges for sampling, weighing
and analysis

18.00

Dock charges

5.00

\$2,438.87

Terms: 1/2% 10 days, 30 days net.

[Vol. 570]

Our debit note covering war & marine insurance,
for your account, will follow.

[fol. 571]

IN UNITED STATES DISTRICT COURT

DEFENDANT VANADIUM CORPORATION OF AMERICA'S
EXHIBIT No. V-1-Z

10;30 A.

2-13-42

Continental Ore Corp.,
500 Fifth Ave.,
New York, N.Y.

Cannot see our way to continue production ferro depart-
March
ment beyond ~~February~~ 10th we are stopping all shipments
of ore

LL:HFG.

Italicized material handwritten.

Defendant Vanadium Corporation of America's Exhibit No. V-2-A

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUE
NEW YORK

AGENTS OF
APEX SMELTING CO
CHICAGO, ILL.
PRODUCERS OF FERRO-ALLOYS

February 16, 1942

Apex Smelting Company
2557 West Taylor Street
Chicago, Illinois

TELEPHONE:
LACRAWANNA 4-2220
CABLE ADDRESS:
LATINORE
CODES:
A. B. C. 8TH EDITION
ACME & SUPPLY.

1352
111A's

Gentlemen:

RE: FERRO DEPARTMENT

It appears that the main reason for your wanting to get rid of the Ferro business is your need of space for another essential war production. However, it seems that you are completely overlooking the fact that Ferro Vanadium is another very essential war item, and that your position in this field has been fully recognized, as you can see from the letter of Mr. Edwin K. Jenckes, Assistant Chief Vanadium Branch, War Production Board, Washington, D. C., dated February 11th.

This letter to you, and a similar letter to us under the same date (Reference 40-EEJ-1540-R), are the direct result of our intervention with Mr. Donald M. Nelson, who referred the matter to Mr. Jenckes for proper attention.

When Mr. Wolf visited you on January 28th, you mentioned that your relations with Mr. Jenckes' office were not at all satisfactory, which also appeared from his remark over the phone that you should hire someone who knows the vanadium business.

All this is now different, and we daresay that this intervention through Mr. Nelson has obviously changed Mr. Jenckes' attitude. Our demarche ended with a major success for Apex Smelting and therefore for us too.

This changed attitude will facilitate our obtaining part of the new output from the new big vanadium plant in Monticello, Utah, and we even foresee that Mr. Jenckes will automatically make such allocations to you.

Whereas there are about 28 or 30 large remelters of aluminum in the country, you will find only:

3	producers of Ferro Vanadium
2	" " Manganese Metal
4	" " Ferro Tungsten

including Apex.

Also, Chicago has a much better strategic position than any other plant making the above materials, in either the Pittsburgh district or Niagara Falls.

You mentioned that you have labor trouble. The fact exists, however, that two other firms are producing the same material. You know yourself that the fumes during the smelting can easily be taken off by a proper fan, and the construction of the long promised baghouse will also help in this respect. The dust from the grinding and mixing operation can be eliminated by performing this operation in a closed apparatus; this should be done not only for health reasons, but also to reduce losses of material. Besides, it is very easy to arrange to have Wisley & Wilson and Blanding ship you only ground material, as Shattuck does.

[Vol. 572]

IN UNITED STATES DISTRICT COURT

DEFENDANT VANADIUM CORPORATION OF AMERICA
EXHIBIT No. V-2-A

572

[fol. 573] As for the deficit in the Ferro department, I really thought that you would not bring up this point again, because I considered it completely settled in our last discussion in Chicago on November 1st and 2nd.

The points which disprove this argument are the following:

A. The Ferro department which (according to the contract) should allow the production of a complete line of thermit process metals, has never had the necessary equipment. As late as February 28, 1941, when I was in Chicago, you showed me the grinding equipment for the aluminum, which, however, was not completed even at that time.

B. A good part of the losses resulted from the use of the aluminum-tin foil scrap.

C. Must we remind you that your own attitude seriously handicapped the development of the Ferro department? There was a time when you did not let us buy vanadic acid for fear of not selling the Ferro Vanadium; and you did not want to let us sell the Ferro Vanadium for fear of not acquiring the necessary raw material.

D. We told you that we are on the best of terms with Latrobe Electric Steel, and we recommended in March, 1941, that we increase the price of the contract for Ferro Vanadium. However, (see your letter of March 17th), you did not approve. Result: lower earnings.

You have promised us a "new" plant for quite some time. You showed us plans (flow sheets) and mentioned that the new plant would definitely result in a lower production cost. We spoke about this new plant in Chicago on:

February 28, 1941

March 27 and 29, 1941

May 26/27, 1941

August 23/24, 1941

September 24/25, 1941

In consideration of such a new investment, we arrived at an agreement as to a change in the old arrangements, and you expressed your complete satisfaction with our attitude.

Finally, you wanted to make things simpler for yourself, and suggested a new arrangement with the Continental Ore Corporation, replacing the old one with Fredet Kuhlmann with a new one by which the Continental Ore Corporation would have to satisfy all demands of the French partner.

It was also understood that the new investment would entitle you to a quicker amortization. In other words, I really endeavored to be a good sport. I want to remind you, at this point, that on a previous occasion I gave up an arrangement between you and Luxemburg regarding the production of metal powder, and that I also brought about your cooperation with Mr. Leute at a moment when he was on the point of signing up with the U.S. Reduction Company.

I am disregarding the fact here that upon the outbreak of the war in Europe (September, 1939), you had not moved at all according to the contract concluded in July, 1938. I must remind you that if the Ferro department had been ready at that moment we would have been the beneficiaries of export prices of \$3.50 and more per pound Vanadium.

[fol. 574] In our last conversation in Chicago on November 1st and 2nd, you urged us to increase the price of Ferro Vanadium to \$2.80, and we promised you not to sell any more below that price. On December 19, 1941, we informed you of the conclusion of the contract with Latrobe, and you acknowledged receipt of our letter by yours of December 22nd (this is in answer to your letter of February 10th, in which you mention that you have not authorized or accepted any contract from the Latrobe Electric Steel Company).

The cessation of the Ferro production would be a slap in the face to Latrobe, for instance, and we must remind you that Mr. Zenk of Latrobe made several interventions with Mr. Jenckes' office, and particularly praised the quality of your material. Latrobe is one of the biggest users of Vanadium in the country. They are excellent customers, not only now, but in peace time as well, and they will not

hesitate a moment to introduce us to other steel mills the moment we have sufficient material available.

You know yourself that wherever your Vanadium 70-80% has been shipped, we received new orders. Of course it is important to maintain contacts with the customers just now, during the emergency, if we expect them to give us orders in normal times.

Now, during the biggest battle of production which the U.S. has ever passed through, is the proper moment to build up new business, and every shipment today means preparation for peace time business. Even if we had no contract at all with your firm, you could not let us down just now, thereby wasting all the honest and successful efforts we have made over a period of more than 3 years. It is not our fault that you treated the Ferro department as a stepchild from the very beginning. If your set-up for the Ferro department were as modern as it is for the aluminum department, we could have already been in the production of Manganese Metal, for instance. You know that we suggested trials to you in the beginning of last year, when we also suggested the production of Ferro Columbium.

The moment you have organized an adequate Ferro department, we will have enough business on hand, even without a pound of vanadic acid, viz. tungsten, manganese metal, which can be produced in quantities of 100,000 pounds a month and even more.

However, everything is now much easier for you because of the intervention of Mr. Nelson in favor of the maintenance of the Apex Smelting Company as producers of Ferro Vanadium, whereby he clearly showed that he does not want to have a vanadium monopoly exercised by the two big producers.

This was one of our arguments in contacting Mr. Nelson, and as you see, he agreed completely.

If your other intended production does not leave any space at all for the Ferro department, then you should be able to find such space outside of your present plant.

[fol. 575] We daresay that the maintenance (and the ultimate growth of your Ferro department) will be a substantial contribution to your standing in Washington, particularly as you are the only aluminum remelter among so many others who had sufficient vision to go into the production of Ferro Alloys by the aluminio-thermic process, thereby adding to the production of most essential war products.

The Thermit department in the Apex Smelting Company, if properly conducted, will help you come to good terms with firms like:

Electromet
Vanadium Corporation
Climax Molybdenum
Molybdenum Corporation

all consumers of granulated aluminum. You know that we do not exaggerate. We are convinced that you can get all their orders for aluminum powder one day, when you are again interested in it, over competition from the National Smelting Company, which today has practically a monopoly in this grade.

You mentioned to Mr. Wolf that a new properly equipped Ferro department would mean an expenditure of about \$60,000.

In order to show you our spirit of cooperation, we should like to suggest that the present arrangements be changed to the effect that you retain 75% of the profit, therefore assigning only 25% to the French partner and ourselves. (The exclusive sales rights on the basis of a commission of 2½% would be reserved to us as heretofore).

However, if you don't accept even this gesture, and you think you must separate yourself from us just at this moment, thus wasting all the work we have done for years, we are ready to discuss this with you. In other words, we are ready to discuss the terms and conditions under which the present arrangements may be cancelled, but we can do so only if the conditions are reasonable enough to be ac-

cepted by our French partner also, which means first of all that no sudden shut-down can be allowed, and that you must promise us to continue the department in good faith for at least another six months, and abstain from any steps which would be detrimental to our French partner and ourselves.

Very truly yours,

CONTINENTAL ORE CORPORATION

/s/ H. J. LEIR

Henry J. Leir

hjl/rk

cc Mr. Singer

Washington, D. C.

[fol. 576]

DEFENDANT VANADIUM CORPORATION OF AMERICA'S
EXHIBIT No. V-2-F

April 8, 1942

Continental Ore Corporation

500 Fifth Avenue

New York City, N. Y.

Att: Mr. Henry J. Leir

Gentlemen:

We have your letter of April 7th and we would like to hold this equipment to one side for you; but unfortunately, space is what we really need at the moment. And in addition to this the present market is a very attractive market to dispose of the equipment.

Jaw Crushers and flat cars particularly take up a lot of room, and you can understand that it would be best to dispose of this material rather than putting it somewhere where it would rust away; and therefore, unless you can see the possibilities of using this, we will make attempts to dispose of it.

Very truly yours,

APEX SMELTING Co.

L. Lipka

L

[fol. 577]

CONTINENTAL ORE CORPORATION
500 FIFTH AVENUE
NEW YORK

[Stamp—Received—Apex Smelting Co.—Oct. 1, 1942—
8:00 A.M.]

September 30, 1942

Apex Smelting Co.
2537 W. Taylor Street
Chicago, Ill.

Re: Jaw Crusher

Gentlemen:

We thank you very much for your wire regarding the jaw crusher and have offered it by airmail to our friends in New Mexico.

We urged them to let us have their decision by Friday but there might be a delay until Saturday if the men are away at the mine.

In any case, we will endeavor to give you a reply by Saturday noon and hope you can keep this matter open for us until then.

Thanking you again, we are

Very truly yours,

CONTINENTAL ORE CORPORATION

/s/ H. J. LEIR
President

Henry J. Leir
rl

610

[fol. 578]

CONTINENTAL ORE CORPORATION

[Stamp—Received—Apex Smelting Co.—Apr. 8, 1942—
8:30 A.M.]

DATE 4/7/42

TO: Apex Smelting Company

SUBJECT Ferro Department

Attention: Mr. L. Lipa

We thank you for your letter of April 6th.

Right at the moment, we are unable to tell you whether we will have use for this equipment. We are negotiating with a party that may be interested in going into this business, but our talks are progressing rather slowly.

We think that for the time being, the best thing would be for you to keep this property in storage in a corner of your plant.

The moment Ferro Vanadium can be exported again, the equipment will become more valuable, because it will be very interesting to produce Ferro Vanadium even on a smaller scale, because of the margin of \$1.00 between the domestic and export price, which margin is in favor of the producer.

Please let us know what you are going to do with this equipment.

CONTINENTAL ORE CORPORATION

/s/ H. J. LEIR

Henry J. Leir/lm

LIBRARY
SUPREME COURT, U. S.

In the Supreme Court

Office-Supreme Court, U.S.

FILED

AUG 11 1961

R. BROWNING, Clerk

OF THE

United States

OCTOBER TERM, 1961

No. 304

CONTINENTAL ORE COMPANY, a Partnership;
and HENRY J. LEIR, ERNA D. LEIR, LINA
SCHLOSS, as Individuals and as Partners
under the trade name and style of Conti-
nental Ore Company,

Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION;
UNITED STATES VANADIUM CORPORATION;
ELECTRO METALLURGICAL SALES CORPORATION;
ELECTRO METALLURGICAL COMPANY OF CAN-
ADA, LIMITED; VANADIUM CORPORATION OF
AMERICA,

Respondents.

**PETITION FOR A WRIT OF CERTIORARI
to the United States Court of Appeals
for the Ninth Circuit**

JOSEPH L. ALIOTO,
MAXWELL KEITH,
RICHARD SAVERI,
G. JOSEPH BERTAIN, JR.,

111 Sutter Street,
San Francisco 4, California,

Attorneys for Petitioners.

CADWALADER, WICKERSHAM & TAFT,

14 Wall Street, New York 5, New York,

Of Counsel.

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In the Supreme Court
OF THE
United States

OCTOBER TERM, 1961

No.

CONTINENTAL ORE COMPANY, a Partnership;
and HENRY J. LEIR, ERNA D. LEIR, LINA
SCHLOSS, as Individuals and as Partners
under the trade name and style of Conti-
nental Ore Company,

Petitioners,

vs.

UNION CARBIDE AND CARBON CORPORATION;
UNITED STATES VANADIUM CORPORATION;
ELECTRO METALLURGICAL SALES CORPORATION;
ELECTRO METALLURGICAL COMPANY OF CAN-
ADA, LIMITED; VANADIUM CORPORATION OF
AMERICA,

Respondents.

PETITION FOR A WRIT OF CERTIORARI
to the United States Court of Appeals
for the Ninth Circuit

Petitioners pray that a Writ of Certiorari issue to
review the judgment of the United States Court of Ap-